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**TRUSTEESHIP OF
AMERICAN ENDOWMENTS**



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TRUSTEESHIP
OF
AMERICAN ENDOWMENTS

*WITH COMPARATIVE ANALYSES OF
THE INVESTMENT EXPERIENCE
OF LEADING UNIVERSITIES*

BY
WOOD, STRUTHERS & COMPANY
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AUTHOR'S NOTE

FOR this study it has been necessary to gather statistical data from a considerable number of official sources, believed to be reliable; and to make therefrom innumerable calculations, assumed to be accurate. It should be recognized, moreover, that collective statistics represent different methods of accounting and reporting, and variant periods or fiscal years. Since compiled from published reports these statistics are not likely to agree precisely with current figures as yet unpublished.

In most cases, the use of round figures was found to be expedient, since any irrelevant search for statistical exactitude might divert attention from the more important consideration of the investment trends and principles which they illustrate. It is believed that any possible minor discrepancies in the many separate computations would not appreciably affect any of the composite figures or their interpretative use.

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INTRODUCTION

THIS study of the financial responsibilities of trusteeship, with its analyses of the investment experience of leading universities, has been prepared in the hope that it will be definitely helpful to individual and corporate Trustees, and to all those Trustees of religious bodies, educational institutions, hospitals, foundations, organized charities, and other cultural and humanitarian organizations for which the lengthening depression has created serious or desperate situations. It is recognized that there has been such a substantial reduction in income from most endowments and such a diminution in the inflow of gifts, that many Trustees, who already have adapted expenditures to reduced incomes, seek still further means by which to minimize present or prospective losses.

Recent separate analyses of the investment experience of many universities and colleges have revealed varying practices. Some of these, being either poorly conceived or not brought into conformity with changed conditions, are resulting in loss of both principal and income; others, being conservatively planned or promptly adapted to the exigencies of the present are perpetuating or extending the causes served. The significance of these investment policies and practices has been embodied in a composite study in the hope that it may be of constructive value to the Trustees of all philanthropic funds.

Consequently, the purport of this book is, first, to establish the financial importance of trusteeship by showing its magnitude; and, second, to state the fundamental invest-

ment principles and actual practices under which thirty outstanding institutions have either been forced to curtail or enabled to extend their usefulness in the field of higher education.

The investment practices which have been detrimental to the institutions' interests are shown with the same fidelity as those practices which have been altogether favorable, in the belief that the former may be quite as illuminating as the latter are constructive. Since the investing of these institutions of learning was done under circumstances analogous to that of all endowments, it is believed that these analyses of a representative section of philanthropy will be of vital import to that all-inclusive group known as philanthropic Trustees.

The policies guiding the investments of those most successful in conserving their principal, in obtaining therefrom a steady or increased income, in making the most out of the emergencies of the present, and in thus gaining the public's confidence on which is built the gifts of the future, are graphically portrayed and fully described in the following pages. The faithfulness with which other Trustees, in the future, observe the policies and measures which are shown to have proved most effective, cannot help but have a significant effect upon the permanency and productivity of, and resultant gifts to, any American endowment.

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**TRUSTEESHIP OF
AMERICAN ENDOWMENTS**

CHAPTER I

THE MAGNITUDE OF TRUSTEESHIP

THE financial magnitude of trusteeship, and the responsibilities attached to it, have reached unparalleled proportions with the enormous increase in the wealth and the attendant largess of the American public during the Twentieth Century.

Though this study is concerned, for the most part, with analyses of a representative section of philanthropy's endowment, no consideration of trusteeship would be complete without a collective showing of the funds and responsibilities of both the philanthropic and the so-called commercial Trustee. While the objectives of each are widely diverse, their responsibilities in the administration of wealth are almost identical.

The philanthropic Trustees function under a general mandate to make money work for altruistic purposes; the commercial Trustees act under a contractual arrangement to make money work for purely private purposes. On the one hand are those selected to administer or disburse, without remuneration, the wealth bestowed on philanthropic institutions; and on the other hand are bank and insurance directors, corporate and individual Trustees, designated to conserve or pay out, with profit to themselves, the ever increasing funds entrusted to their care. Both types of Trustees are bound by much the same moral and statutory obligation to those whose trusts they accept, to safeguard the funds and property placed in their care or to effect its

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expenditure towards specific ends. It is this similarity of responsibility which renders it desirable to consider trusteeship in an inclusive sense, in order that a comprehensive evaluation may be had of it in our modern economic system.

Little would be gained by attempting to discover and total here all strictly trust funds or to sort out and add up those commercial funds over which a measure of trusteeship exists. It is rather by taking a long range view of the "dollar" magnitude of trusteeship, by comparing some known trust funds with other large aggregations of wealth more easily grasped by imagination, that one gets a conception of the transcendent importance of the financial responsibilities carried by American Trustees. One searches in vain for any period when so much has been staked on their integrity, judgment, and ability to perform given behests as in the present day.

THE PHILANTHROPIC TRUSTEE

When one considers the published statement that, "philanthropy's annual income [from all sources] of two and a half billion dollars is exceeded only by the incomes of the American and British governments" one realizes how almost incalculable is the responsibility of this group of Trustees. The extent to which philanthropy has so entrusted its property, endowments, and current gifts and income may be approximated, however, from the huge sums invested in its most widely supported branches—religion, education, hospitalization, foundations, and organized charity. But the far-flung benefits bestowed by such endowments may be accurately measured not alone by the amount of wealth philanthropy has mobilized, but by the quality of trusteeship it has enlisted.

In the case of religion, when to the total property wealth of about \$3,839,500,000 is added the \$996,300,000 received

in gifts during the year last reported, it is found that the Trustees serving the cause of all religious groups have financial and property responsibility for \$4,835,800,000. This really colossal trust, dedicated to the spiritual welfare of America, gives unmistakable grandeur to a trusteeship that extends not only in a spiritual direction but in an economic one as well. The wise management of so much property and the investment or expenditure of so much money cannot help but play an important part in the economic balance of the country.

Without stopping to examine the spiritual implications attached to the control of these funds, which are equal to about a fourth of the assets of all American life insurance companies, consideration may at once be given to some of the other philanthropic fields in which the Trustees' services are recognized as having both an altruistic and an economic significance.

The value of all property and productive funds belonging to institutions of higher learning, according to the latest statistics published in 1929, was approximately \$2,815,000,000. By apportioning to this educational group \$233,750,000, or one half of the gifts received in that year by all educational groups, and by adding \$546,674,226 receipts from tuition and other sources, it will be found that this group of Trustees has been entrusted with the preservation and expenditure of more than \$3,595,400,000—a sum which was then about one third of the savings deposits in all mutual savings banks in the United States.

This comparison of educational resources with savings deposits, which is admittedly a cold way to make real a responsibility which is just as much cultural as financial, may be justified by the need of establishing by any reasonable means a general appreciation of the amount for which this comparatively small group of Trustees is accountable.

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While it is estimated that the nation's investment in roughly seven thousand hospitals is close to \$3,000,000,000, this sum cannot properly be taken as representing the financial obligation of hospital Trustees. Though about 90% of this sum was the gift of American citizens, it includes some provision also for government hospitals, which are for the most part administered by government appointees. The "association" hospitals, however, erected and maintained largely through public beneficence, and administered by Trustees, represent an investment of \$1,400,000,000. If properly there may be added to this amount gifts to health, which recently have averaged \$221,500,000 annually, it is apparent that the Trustees of non-governmental hospitals are administering \$1,621,500,000, exclusive of operating income. Though the annual operating income of these hospitals is variable, on the basis of only \$5.00 per day for each of the beds in the association hospitals, and disregarding all other sources of income, another \$844,800,000 might be added that would fix the amount for which hospital Trustees are accountable, at about \$2,466,300,000. Their administration or expenditure of this vast sum, involving provision for the scientific care of the sick in their communities, is unexampled in the world's history.

Next in the size of their invested funds are the 125 foundations. While a few of these foundations do not publish the amount of their productive capital, 105 of them report assets of slightly over \$853,400,000. It seems reasonable to believe, therefore, that the other twenty foundations, some of which are known to be large, might add enough to justify the statement that the total invested capital of all American foundations amounts to, if indeed it does not exceed, one billion dollars.

There are few fields of activity in which these foundations are not at work, testing the human and the economic

factors in their laboratories of experience and research, and aiding those specific agencies which in their judgment and field of interest give greatest promise of constructive accomplishment. The American foundations, as they are known today, were almost non-existent in the preceding century. Their growth and program of objectives, like the growth of higher education, is a phenomenon of the age. They are an integrating force strongly affecting all organized endeavor to improve American civilization.

In the case of the thousands of charitable organizations, it must be admitted that it is impossible to record an authoritative portrayal of the aggregate financial responsibility assumed by those Trustees who administer their affairs. The amount of productive funds held by these agencies giving relief to the poor is an entirely unknown quantity, as is the value of their lands and buildings. Scattered investigations by various groups have placed this figure of capital investment well above \$200,000,000—exclusive of rapidly increasing state and municipal expenditures in this direction, but none of the estimates, however well sponsored, can be authenticated. In attempting to find a fairly reasonable investment total for organized charity, several prominent social service authorities have been consulted and, on the basis of collective judgment only, the conclusion has been arbitrarily reached that their property and funds approximate \$239,000,000.

If this figure is postulated as the investment total for organized charity, and to it is added the average annual gifts of \$250,000,000, it may be considered that the Trustees in this field have the care or expenditure, during each year, of \$489,000,000. Though this sum is far less than that handled by the Trustees of religion, education, hospitals, or foundations, the purposes it serves are more stark in their

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basic significance—a fact which clothes this group of Trustees with duties that greatly overpass any financial consideration.

One might readily build up the institution of trusteeship by adding the capital and annual gifts devoted to such other branches of philanthropy as the various men's and women's religious associations, the foreign relief agencies, the recreation and playground associations, the reform organizations and others, too numerous to mention, but which in the aggregate would conceivably add to the foregoing benevolences a sum running into ten figures. Then with equal propriety might be added the endowments of libraries, museums of art and natural history, and kindred institutions that would augment vastly the amounts of wealth aforementioned as trusted for humanitarian purposes. But the fact that philanthropy's Trustees have a responsibility of monumental size can be grasped as readily by examining the following exhibits and recapitulation of round figures:

EXHIBIT 1

PHILANTHROPIES	PROPERTY AND ENDOWMENT
Religion	\$3,889,500,000
Higher Education	2,815,000,000
Hospitals	1,400,000,000
Foundations	*1,000,000,000
Organized Charity	*239,000,000
TOTAL	\$9,293,500,000

EXHIBIT 2

PHILANTHROPIES	YEAR'S GIFTS
Religion	\$996,300,000
Higher Education	*233,700,000
Hospitals	221,500,000
Foundations	—
Organized Charity	250,000,000
TOTAL	\$1,701,500,000

MAGNITUDE OF TRUSTEESHIP

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EXHIBIT 3

PHILANTHROPIES	OPERATING INCOME
Religion	\$ —
Higher Education	546,600,000
Hospitals	*844,800,000
Foundations	—
Organized Charity	—
TOTAL	\$1,391,400,000

RECAPITULATION

Exhibit 1, Property and Endowment	\$9,293,500,000
Exhibit 2, Year's Gifts	1,701,500,000
Exhibit 3, Operating Income	1,391,400,000
TOTAL	\$12,886,400,000

(* Estimated)

Probably no group of men has responsibilities more poignantly freighted with human considerations than those of the Trustees administering these twelve billions of dollars. Under their direction and inspiration the causes of religion, education, health, and relief must be made articulate in order that men and women more fortunately circumstanced may know the financial need and contribute accordingly. These trustees have in their control the enlistment of governmental, state, and municipal aid; and the problem of public education as to a proper division of financial support between government and private endeavor.

Just what is the relative importance of that trusteeship, not considered in terms of sociological endeavor, but as a part of the economic system? If that importance is to be determined by economic standards, then comparison must be with such factors even at the risk of attempting to form equations between factors that are irreconcilable. For instance, on the basis of capital invested as of nearly comparable dates, it is found by comparison that philanthropy—not including its gifts and operating income—ranks surprisingly high in the following scale of the Country's leading industries:

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Agriculture	\$58,645,000,000
Railroads	24,698,000,000
Oil	12,000,000,000
Electricity	12,000,000,000
PHILANTHROPY	9,293,500,000
Lumber	8,000,000,000
Iron and Steel	4,500,000,000
Textiles	4,100,000,000
Telephone and Telegraph	2,600,000,000

It is apparent from these round figures that only four industries top philanthropy, while all but one other falls far below—a fact undoubtedly without precedent in any other era, even in those periods of mediaeval history when the Church gathered so much of the world's goods into its possession.

Other comparisons would reveal that the collective wealth of all six New England states is but twice that of philanthropy; that the wealth of only six separate states is greater; while the wealth of a great majority of the states is less than twenty-five per cent of just the philanthropic agencies covered by this study. The astounding magnitude of American philanthropy is perhaps in no other way more graphically told than by comparing the \$12,386,400,000 invested in part of America's philanthropies with the \$10,769,000,000 wealth of Belgium, and \$28,940,000,000 wealth of the whole of Canada. By international comparisons of this nature, it is seen that many such countries as Holland, Denmark, Hungary, and Mexico actually have much less total wealth than is in the hands of the Trustees of America's leading philanthropies.

The surprising revelation that philanthropy's capital so far exceeds that of all but four industries, that it is greater than the wealth of all but six of the states of the Union, and of many foreign countries, attests the hugeness and consequent importance of the financial responsibility of its Trustees.

THE COMMERCIAL TRUSTEE

As the first object of this study was to establish the financial magnitude of philanthropy and to betoken that beneficence is perpetuated and extended through the skill of its Trustees; so the second object is to set down in dollar terms the approximate extent to which the public commits its funds to commercial Trustees; and finally to make incisive the importance of modern trusteeship upon which depends in so great measure the financial and sociological security of the Nation.

As this study is concerned with trusteeship in its broadest rather than in its legal sense, it may be considered not too expansive an application of trusteeship to bestow the term commercial Trustee upon those in whom others have reposed a trust that can be fulfilled only through the preservation of wealth. Under this classification, as opposed to the philanthropic Trustee already considered, and to the hosts of duly appointed individual Trustees whose responsibilities cannot be evaluated in this study, it may be deemed not inappropriate to include directors and officers of banks and life insurance companies. It is these groups which, in the philosophy of the present study, fall into the classification of commercial Trustees.

In a very specific sense of the word those who are directing banks and life insurance companies are acting as Trustees, for in the eyes of the law they must safeguard the funds entrusted to them. So truly is this the case that nations customarily surround and define permissible actions by definite statutory regulations for the protection of depositors and policyholders. Certainly anything that is done to safeguard the vital interests of the trustors at once imposes upon the Trustees themselves a better understanding of their responsibilities, and inspires in the public a fuller

comprehension of the Trustees' contribution to the common welfare.

The continuing integrity of banks and insurance companies is a matter of vast importance to the people of this and future generations, as the people of the Country have, in a very definite sense, staked their present wealth and future prosperity upon the collective judgment of those who administer these great interests.

Amongst banking units, obviously the trust companies and the trust departments of national and state banks are literally Trustees—accepting legal appointments to employ safely and profitably the wealth in their care or to disburse it as specified. It is unfortunate that the aggregate of these huge trust funds, which add greatly to the vastness of trusteeship, are unknown and unknowable. It is true that national banks must report the amount of trust funds held, but as they were the last to be authorized to engage in trust business the \$5,242,000,000 of property trusted with them as of June 30, 1931, must be relatively much smaller than with the trust companies and state banks. The latter, on the other hand, being under no obligation in most states to report trust funds, regard each trust as confidential and consequently avoid reporting their combined worth to any clearing house of information. Any composite picture which is herein presented of trusteeship must, therefore, exclude the all important item of such trusted property.

Next amongst those commercial Trustees who serve the Nation's business, comes the group responsible for the people's savings, of which on June 30, 1931, there were in the mutual and stock savings banks \$11,039,310,000, and in the savings departments of national and state banks \$15,594,639,000. The fact that these collective savings of \$26,633,949,000 represent the frugality of 49,885,533 de-

positors, who in large part have few other reserves, adds to the Trustees' financial responsibility a sense of moral and social obligation.

The commercial bankers, in a very real sense, hold a place in the economic order that is closely related to the philanthropic Trustees in the sociological field. Certainly there is an ethical implication attached to the position of these bankers that is no less important because they combine the business of making fair profits for their stockholders with the sacred duty of preserving their customers' deposits, and using these vast resources placed in their control toward balanced activity in business. Demand and time deposits, representing such an imposing responsibility, amounted for all banks on June 30, 1931, to \$50,485,571,000.

These bare figures, representing the cash resources of industry, commerce, and private wealth give but a meager conception of the vast stake in human welfare which lies behind them, for it most assuredly represents in dollar terms the culmination of labor, ingenuity, and thrift since the first American settlers encamped at Jamestown and Plymouth more than three hundred years ago.

The fact is unmistakable that the men responsible for the trust, savings, and commercial deposits of the people constitute a group of Trustees indispensable to American life.

It would be impossible to portray the entire institution of trusteeship as it has developed in the United States without an attempted measurement of the trust assumed by those who direct our great life insurance companies, which have amassed assets of \$20,200,000,000. This represents the extent to which the American people have sought to assure financial security for themselves and their families; and is some indication of how they have relieved philanthropic or state organizations from the possible ne-

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cessity of supporting many who otherwise might become dependent upon charity.

That the stupendous obligations of commercial Trustees have few counterparts, may be judged by the following enumeration of funds which are here considered to be held in trust:

Trusted Property	UNKNOWN
Savings Deposits	\$26,633,949,000
Commercial Deposits	50,485,571,000
Insurance Assets	<u>20,200,000,000</u>
TOTAL	\$97,319,520,000

Were it possible to set down the exact amounts of trusted property, which in the aggregate doubtless would not be the smallest of the above figures, and to add the innumerable lesser funds, it would be found that this indication of the measure of the commercial Trustees' responsibilities would be substantially increased.

It is now possible, however, to get a perspective on the two major types of Trustees, whose financial responsibilities, in part, have been shown to be approximately as follows:

Philanthropic Trustees (Property, endowment, and current gifts and income)	\$12,386,400,000
Commercial Trustees (Bank deposits, excluding trusted property, and insurance assets)	97,319,520,000
TOTAL	<u>\$109,705,920,000</u>

Here then is a fairly accurate yardstick by which to measure the financial responsibility which is being carried by American Trustees. Though expressed in dollar terms it reveals by implication sociological obligations which reach into every stratum of society.

In order to delineate more completely the proportions of the institution of trusteeship, and to comprehend the

gravity of the Trustees' financial responsibilities, the activities which they direct should be considered in terms of social value. On the other hand, it would not be possible, even were it within the scope of this analysis of investment experience, to draw a comprehensive outline of the pervading nature of the Trustees' responsibilities. For where is there one who could envisage the spiritual values attached to the far-flung works of our various faiths; who could peer far enough into the future to see how largely our civilization is advanced through the frequent technical discoveries and wide dissemination of modern thought by our institutions of higher learning; who could project the elongation of life, the betterment of health, and the consequent economic gain to individuals and communities through the scientific ministrations of our modernly equipped hospitals; who could fathom sympathetically the reaches of mercy extended, to those burdened or prostrated by adversity, through innumerable charity relief organizations; or who could grasp imaginatively the extent to which the present and future economic welfare of the American people is assured by the banking and life insurance systems of the Country?

These are serious responsibilities that permeate our national life. The effectiveness with which they have been discharged can be somewhat understood by contemplation of a condition of living in which the philanthropic Trustee and the commercial Trustee did not exist.

Likewise the degree of the Trustees' effectiveness is in part measurable by the income they obtain from the administered funds. Those who, without any undue sacrifice in the security of their principal, so skilfully invest and reinvest their funds as to increase annual income by so little as one-half of one per cent, may to that extent increase their beneficences. Conversely, those who for want of con-

stant attention to their investment portfolios, or for lack of adequate information, or for failure to take timely corrective action, or for any other preventable cause suffer a like shrinkage of income, may to that extent seriously curtail their present usefulness.

Just how significant those gains or losses may be, particularly where large endowments are concerned, may be comprehended by considering what would be the equivalent of a loss of only one half of one per cent in the income from thirty collegiate funds—hereinafter analyzed as to income and current return. Were the income from these funds of \$536,606,090, which is but a small fraction of philanthropy's total endowment, to shrink only one-half of one per cent, it would amount to \$2,683,030, which is more than the annual operating expense of not a few large universities and more than six times the \$445,051 average budget of all the universities and colleges in the Country during the latest year for which collective statistics have been published. The loss of such a sum would be sufficient theoretically to close six of those institutions of higher education, with immeasurable loss to the Country.

Then if all the philanthropic Trustees of the Country were collectively to err in or benefit by their financial judgment and management to the extent of only one-half of one per cent of the total entrusted to them, the loss on the one hand, or the gain on the other, to the causes they serve would be \$61,932,000. These figures do not represent entirely imaginary conditions, since many institutions have suffered from much larger losses, while others have benefited by even greater gains, but they are here introduced to make an impression, an indelible one it is hoped, of not only the vast responsibilities resting upon Trustees but of the far-reaching consequences that may follow any decrement or betterment of normal investment experience.

Just what expedients have been successfully used to safeguard the principal of endowment and to get, at the same time, a stable and liberal income are considered in detail in the following "Analyses of the Investment Experience of Leading Universities."

CHAPTER II

A REPRESENTATIVE SECTION OF AMERICAN ENDOWMENTS

THE concern felt lately by the Trustees of American universities and colleges as to whether their funds, invested temporarily or in perpetuity, are likely to produce current and future income sufficient for specified needs, has brought about the recent reëxamination of many collegiate investment lists.

This study of the Composite Fund of thirty such universities and colleges, whose lists were first analyzed individually, has been made in order that all institutions of learning, as well as all philanthropic, charitable, and religious organizations whose investments are made under analogous conditions, may have opportunity to measure thereagainst their own holdings and investment policies.

A broad study of all these diverse funds, or even of just university and college endowments, would be almost impossible of achievement. The investment lists of all would not be available; their fiscal years would vary; their method of valuing and reporting investments would differ; and such an unwieldy aggregation of holdings would not be susceptible to thorough analysis. It has seemed practical, therefore, to limit this study to only a representative section of these vast funds, namely, to the investments of leading universities and colleges.

It is hoped that the comparative analyses of the separate and Composite Funds of these institutions will cast an occa-

sional ray of light upon collegiate investment problems, and here and there point out the road to their solution. Indeed there seldom has been a time when the Trustees of other great public and semi-public funds have had so much reason to consider carefully all the accepted means by which some who are responsible for similar institutional funds are guarding against and offsetting a shrinkage in their incomes.

Much publicity in recent months has been given to a shrinkage in the income of universities and colleges in all sections of the Country. Both large and small institutions are reported to have suffered so severely as to be forced to reduce their teaching staffs, to lower salaries, to discontinue various courses, to close buildings, and to curtail activities to a degree which threatens to minimize their efficiency in the field of higher education.

There are not a few colleges that have been so weakened by the financial snarls in which they have lately become enmeshed that their very existence is contingent upon new gifts to their endowment funds. But gifts to philanthropy in the United States, which exceeded two billion a year from 1923 to 1929, are now gradually diminishing in size and number. Since 1929, when education received \$467,500,000 of the \$2,450,720,000 given to philanthropy during that year, a constantly increasing number of the former benefactors of higher education have found their own incomes so sharply reduced that they are unable to continue their accustomed gifts at a time when even larger and more gifts are urgently needed.

As these gifts, even in normal times, have not increased as fast as the cost of higher education, there is little justification in depending upon them for the emergency relief needed at the moment. Consequently, since the current needs of most universities and colleges are urgent, their

Trustees may find timely profit in examining and carefully considering the entirely feasible and widely accepted practices, pointed out in this study, by which the Trustees of many institutions of learning are reducing their losses, and by which others are making their productive funds yield actually greater returns.

If many of these measures, intended first to improve the quality of collegiate investments and second to increase their productivity, were applied to all college endowments, which aggregate approximately \$1,150,112,251, they would go a long way to curtail the impressive loss of income experienced by some of the 226 universities and colleges supported partially by endowment and in part by public taxation, and by most of the 850 institutions supported largely by endowment and private subscriptions.

These latter privately supported institutions are estimated to save the public treasuries of the 48 states approximately \$335,613,562. This saving is approximated by multiplying the number of students in independently supported universities and colleges by the amount it cost the tax-supported institutions per student during the collegiate year ended June 30, 1928.

In order that this saving to the taxpayers may be permanent, the capital of our privately supported institutions of learning must be invested safely. In order, also, that the income of our privately supported colleges may keep pace with the mounting costs of education, and in order that these institutions may not have to restrict their activities or to run unnecessarily into debt, their capital funds must be invested to yield as large an income as is consistent with adequate safety of their principal.

It is hoped that this study, by revealing the investment trends of thirty large institutions of learning; by comparing their collective judgment with that of fifty-two leading

insurance companies and with an outstanding foundation; and by recording specific and constructive suggestions for safeguarding the principal of, and the income from, collegiate investments, may be definitely helpful to the Trustees of all like or similar funds.

CHARACTERISTICS OF COLLEGIATE INVESTMENTS

The endowment funds and other productive assets of institutions of higher learning are not susceptible to the application of quite the same analytical measuring rods as are the investments of, for instance, savings banks or life insurance companies. The external characteristics of collegiate holdings, the "form" of their investment portfolios, are quite likely to be those of an heterogeneous collection of securities as opposed to a deliberately planned and unified whole. The reason for this arises principally in the nature of the origin of these funds, coming as they do very largely from bequests.

Gifts in the form of securities, which in some instances must be retained intact, often do not fit in with the previous investments of the college but, on the other hand, frequently introduce one or more of the following obstacles to the most efficient handling:

Blocks of individual securities disproportionately large for the size of the total fund.

Individual holdings too small in amount to receive constant attention.

Securities of obscure companies which, though well known to the donor, cannot be accurately appraised by either college officials or their financial advisers.

In addition to these complications, there are at least two factors which militate against flexibility and freedom of action on the part of those responsible for collegiate invest-

ments. In the first place, it is by no means unusual for a donor to impose specific restrictions against the disposal of his gift. In the second place, the active handling of endowment funds is too frequently not delegated to a responsible individual but is left with a committee, widely separated geographically and hence naturally slow to act. In an active security market advantageous opportunities to improve investment position may easily pass before a committee can arrange a mutually convenient meeting time. Often what a finance committee contributes through collective sagacity is lost through its inability to act promptly.

There are also marked differences between the investment objectives of colleges and other investors. If the four cardinal attributes of investments are, as is commonly conceded, safety of principal, adequacy of income, marketability, and appreciation, it may be assumed that, in all institutional and Trustee investing, safety of principal is paramount. Whereas a bank may rank marketability as the attribute second in importance, and a private investor may even subordinate safety to appreciation, the second interest of a university or college is invariably in income as large as may be had without undue sacrifice of security. Income is indeed the life blood of every institution supported by endowment and private subscription. If a collegiate investment no longer produces its periodic yield, its usefulness ceases.

As a corollary to the position occupied by income in the college financial scheme, it follows that marketability is doubtless the least necessary of the four cardinal investment attributes, because the principal of endowment funds is rarely drawn upon. Though a moderate proportion of a college fund may properly be in readily liquid form, too high a degree of marketability would involve a needless sacrifice of income. Appreciation, while extremely helpful if

it eventuates, can seldom be made a direct aim, except as it may be the result of intelligent effort to enlarge income. If marketability and appreciation—which make securities so valuable to the average investor that he is willing to pay a higher price for them—do not enhance their value to a college, then it is very important that its Trustees find other securities on which there is a higher rate of return. For instance, as colleges are not taxable there is no necessity for their acquiring tax exempt securities, with consequent sacrifice of income.

If an exhaustive study were to be made of the proper objectives of university investments, one of its most absorbing aspects would be the relation of the endowment income to the uses to which it necessarily is put. A life insurance company, for example, receives its premiums in dollars and assumes an obligation to repay dollars at some definite or indeterminable future date. For this purpose, therefore, it matters not at all what the real value of the dollar in terms of commodities may be at those separate times. Not so, however, with a college, for in practice it must immediately translate a great majority of the dollars it receives in income into commodities or services. In terms of purchasing power, therefore, its fixed income may conceivably fluctuate almost as much as though a substantial part of its investments defaulted. This obviously suggests that certain investment media, such as selected common stocks in ably managed, essential companies, which become more productive in periods of rising prices, have their place among university investments alongside of the traditional bonds and mortgages.

The foregoing reference to a few of the outstanding characteristics of the investments of the average institution of learning, and of some of its principal logical aims, serves to indicate that the problems which confront those charged

with the administrations of collegiate investments call for sound judgment and knowledge of investment values. Fortunately, there is a wealth of knowledge, experience, and facilities that can readily be brought to bear upon these problems.

The protection of even the smallest college endowment included in this study calls for the constant supervision of a well organized and expensive statistical department—or its equivalent. So insistent, however, are the demands on the current income of a college that it has a natural reluctance to establish such a supervisory system, although an insurance company of lesser size does not hesitate to spend many times as much to safeguard its investments.

THE SCOPE OF THE ANALYSIS

This study covers the productive funds of thirty leading universities and colleges, whose reported endowments are 74% of the combined investments of all institutions of higher education in this country having endowments in excess of \$5,000,000 each. These thirty institutions, located in 17 states and virtually all sections of the country, represent in number 70% of all the institutions of higher learning in the United States reported to have endowments in excess of \$10,000,000, and 62½% of those said to have endowments in excess of \$5,000,000 each. It was felt that to include institutions having endowments of less than \$5,000,000 would interpose physical difficulties out of all proportion to any possible advantages, while an analysis of less than thirty funds would not permit of grouping them according to size, in order to draw worth-while comparisons between the investment practices of the larger institutions and those of medium and smaller size.

In order that institutions everywhere may be enabled to make comparisons, on a basis that is more nearly analogous,

the universities and colleges are studied individually as well as by groups. Included in Group A are 12 institutions having stated funds of from \$5,000,000 to \$10,000,000; in Group B are 7 institutions with funds of \$10,000,000 to \$20,000,000; and in Group C are 11 institutions with funds of from \$20,000,000 to approximately \$100,000,000. Since this grouping was made before market values were determined it had to be based on the size of each fund as then stated by the institution itself.

According to more recent market values these funds, which aggregate more than half a million dollars, are distributed as follows:

	NUMBER OF INSTITUTIONS	TOTAL FUNDS	APPROXIMATE AVERAGE
Group A	12	\$63,269,870	\$5,250,000
Group B	7	90,088,610	13,000,000
Group C	11	383,247,610	35,000,000
Composite Fund	30	<u>\$536,606,090</u>	<u>\$18,000,000</u>

The Composite Fund, made up of 6,707 individual bond and stock items, contains 3,173 different issues, divided as to the type and field of investment, as follows:

BONDS

Railroad	700
Public Utility	814
Industrial	364
U. S. Government	7
Municipal	105
Foreign	143
Real Estate	<u>120</u>
	2,253

PREFERRED STOCKS

Railroad	70
Public Utility	133
Industrial	<u>169</u>
	372

COMMON STOCKS

Railroad	36	
Public Utility	72	
Industrial	228	
Bank and Insurance	<u>85</u>	
		421
Securities for which no market could be found		<u>127</u>
TOTAL		3,173

The investments of each institution shown comparatively in this study, though representing necessarily slightly variant fiscal years, were taken from the latest lists available at the time this study was begun. The bonds and the stocks are shown not at their stated value but at the market in November, 1931, except 127 obscure issues for which no market could be found. These have been disregarded entirely in totaling the investments and in figuring the income and current return derived therefrom. Mortgages, real estate, and miscellaneous items are shown at their stated value.

In view of the unprecedented severity of the decline in the quoted value of all classes of securities during the past three years, it seemed misleading to base judgment on a collection of securities either at their face value or at the depreciated markets of mid-1932. For this reason it was felt that a period two years after the deflation started, and just prior to the acute distress selling of bonds which started toward the close of 1931 and continued far into 1932, would present a fair compromise. While common stocks, at the date of this valuation, already had fallen 75% from their highs, and while the sharpest fall in poor bonds was still to come, November, 1931, marked an approximate middle point in the market depreciation of high grade bonds and in the better preferred stocks.

Although November, 1931, has been thus arbitrarily chosen for purposes of valuation, a much greater shrinkage would appear in the following tabulations if the amazing change in values and decline in incomes that have since occurred were taken into account. While the current fiscal year may witness a considerable recovery in values, it is not improbable that income may fall even below that of the 1931-1932 fiscal year.

As this study is concerned with all strictly investment items, many bonds and stocks have been included which do not belong to endowment funds, and conversely some miscellaneous items have been excluded because most universities and colleges do not classify them as investment assets. For the foregoing reasons there is little parallel between the total of all their investments as valued at the market in November, 1931, and in the value of the endowment fund of the various institutions as stated by them.

CHAPTER III

DISTRIBUTION OF INVESTMENTS ACCORDING TO CLASS

INVESTED assets logically first divide themselves: as to securities, into bonds, preferred and common stocks; as to real estate, into mortgages and real property; and into miscellaneous. While these classifications are superficial in that they afford no index as to quality, they do afford the investor considerable latitude as to the manner in which he may diversify his investments. Each of the aforementioned classes, if well selected, has its proper place, according to the varying degrees of risk involved, in any collegiate investment program.

Funds as large as those which are here dealt with may be expected to exhibit a fairly broad distribution among all of these classes. That distribution is set forth in the accompanying table, which is Table I of a series which presents, in complete detail, the investment experience of each institution in convenient form for comparison with the average experience of institutions of like size and with the showing of the Composite Fund.

Those wishing to study seriously the contemporaneous investment experience of our leading institutions of learning, with a view to avoiding their costly mistakes and adopting their farsighted practices, will not turn to these tables merely for reference purposes. On the other hand, in their study they will make a feature of the tables and

DISTRIBUTION OF FUNDS ACCORDING TO CLASS OF INVESTMENT

UNIVERSITIES AND COLLEGES	BONDS		PREFERRED STOCKS		COMMON STOCKS		MORTGAGES *		REAL PROPERTY		MISCELLANEOUS		TOTALS		UNIVERSITIES AND COLLEGES
	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	
1 A	\$ 2,397,650	54.1%	\$ 162,080	3.6%	\$ 330,640	7.5%	\$ 1,220,000	27.5%	\$ 159,550	3.6%	\$ 162,300	3.7%	\$ 4,432,220	100%	1 A
2 A	3,496,620	79.0	126,150	2.8	269,200	6.1	237,100	5.4	172,670	3.9	123,160	2.8	4,424,900	100	2 A
3 A	3,168,540	75.1	486,330	11.5	160,030	3.8	126,200	3.0	—	—	275,940	6.6	4,217,040	100	3 A
4 A	2,422,700	58.3	833,900	20.1	358,440	8.6	447,230	10.8	29,510	.7	62,740	1.5	4,154,520	100	4 A
5 A	37,680	.7	—	—	—	—	4,869,470	93.6	34,400	.7	259,930	5.0	5,201,480	100	5 A
6 A	2,531,850	50.3	1,175,630	23.4	914,180	18.2	50,540	1.0	337,660	6.7	21,570	.4	5,031,430	100	6 A
7 A	585,330	16.1	395,360	10.9	118,750	3.3	1,282,900	35.4	1,181,220	32.6	62,800	1.7	3,626,360	100	7 A
8 A	4,189,320	66.5	356,180	5.7	368,810	5.8	252,600	4.0	1,070,040	17.0	61,360	1.0	6,298,310	100	8 A
9 A	1,462,970	30.7	849,400	17.9	427,210	9.0	901,060	18.9	1,098,010	23.1	20,200	.4	4,758,850	100	9 A
10 A	4,975,280	74.8	938,340	14.1	136,600	2.1	552,800	8.3	—	—	47,240	.7	6,650,260	100	10 A
11 A	3,126,790	49.8	5,070	—	30,650	.5	663,280	10.6	2,212,800	35.3	236,900	3.8	6,275,490	100	11 A
12 A	6,539,360	79.8	255,300	3.1	658,270	8.0	42,400	.5	—	—	703,680	8.6	8,199,010	100	12 A
13 B	5,014,360	55.3	326,190	3.6	711,990	7.8	2,062,130	22.7	608,880	6.7	351,620	3.9	9,075,170	100	13 B
14 B	2,749,320	30.7	13,930	.1	18,710	.2	—	—	1,395,800	15.6	4,790,020	53.4	8,967,780	100	14 B
15 B	4,189,230	51.9	1,635,890	20.3	358,610	4.4	1,771,500	22.0	—	—	114,810	1.4	8,070,040	100	15 B
16 B	4,817,060	40.9	492,170	4.2	2,234,890	18.9	722,500	6.1	3,530,820	29.9	—	—	11,797,440	100	16 B
17 B	8,321,930	52.3	4,462,300	28.0	543,380	3.4	2,285,850	14.4	309,080	1.9	—	—	15,922,540	100	17 B
18 B	3,141,530	16.0	3,536,680	18.0	3,080,520	15.6	9,429,220	48.0	385,300	1.9	90,820	.5	19,664,070	100	18 B
19 B	13,538,770	81.6	561,280	3.4	120,650	.7	915,470	5.6	455,400	2.7	1,000,000	6.0	16,591,570	100	19 B
20 C	3,232,090	12.7	51,540	.2	2,670,620	10.5	4,092,550	16.1	13,840,200	54.5	1,520,270	6.0	25,407,270	100	20 C
21 C	17,285,700	69.1	27,640	.1	44,390	.2	2,325,170	9.3	3,558,880	14.2	1,791,080	7.1	25,032,860	100	21 C
22 C	11,783,660	65.9	2,573,330	14.4	1,010,020	5.7	1,155,810	6.5	1,346,100	7.5	—	—	17,868,920	100	22 C
23 C	6,976,630	41.2	2,662,930	15.8	3,141,120	18.6	3,729,400	22.0	411,940	2.4	—	—	16,922,020	100	23 C
24 C	17,642,080	74.2	364,360	1.5	799,800	3.4	4,243,190	17.9	639,150	2.7	71,620	.3	23,760,200	100	24 C
25 C	17,994,140	63.5	—	—	10,000	—	—	—	10,187,930	35.9	166,320	.6	28,358,390	100	25 C
26 C	16,631,420	55.1	1,454,510	4.8	7,359,770	24.4	3,346,620	11.1	277,430	.9	1,133,880	3.7	30,203,630	100	26 C
27 C	19,240,290	62.7	1,251,580	4.1	5,666,010	18.4	612,800	2.0	606,100	2.0	3,330,710	10.8	30,707,490	100	27 C
28 C	9,261,560	26.4	1,502,980	4.3	431,690	1.2	13,983,650	39.9	5,410,020	15.5	4,428,320	12.7	35,018,220	100	28 C
29 C	22,532,470	35.4	10,658,700	16.7	9,090,090	14.3	9,545,560	15.0	8,508,910	13.3	3,389,420	5.3	63,725,150	100	29 C
30 C	48,167,800	55.9	4,653,240	5.4	12,506,330	14.4	1,778,660	2.1	12,446,230	14.4	6,691,200	7.8	86,243,460	100	30 C
Group A (1 A-12 A)	34,934,090	55.2	5,583,740	8.8	3,772,780	6.0	10,645,580	16.8	6,295,860	10.0	2,037,820	3.2	63,269,870	100	Group A (1 A-12 A)
Group B (13 B-19 B)	41,772,200	46.4	11,028,440	12.2	7,068,750	7.8	17,186,670	19.1	6,685,280	7.4	6,347,270	7.1	90,088,610	100	Group B (13 B-19 B)
Group C (20 C-30 C)	190,747,840	49.8	25,200,810	6.6	42,729,840	11.1	44,813,410	11.7	57,232,890	14.9	22,522,820	5.9	383,247,610	100	Group C (20 C-30 C)
Composite (A, B & C)	267,454,130	49.8	41,812,990	7.8	53,571,370	10.0	72,645,660	13.5	70,214,030	13.1	30,907,910	5.8	536,606,090	100	Composite (A, B & C)

* — Mortgage Bonds classified with "Bonds." ° Does not include undetailed bond account added to "Miscellaneous." ° Includes undetailed bond account of approximately \$4,000,000.

examine each in detail in order that, by comparing their own investment experience with that of each university, they may find convincing evidence of what should be their own future course.

The distribution of the Composite Fund according to class of investment, as graphically portrayed on Chart I, is as follows:

Bonds	49.8%
Preferred Stocks	7.8
Common Stocks	10.0
Real Estate Mortgages	13.5
Real Property	13.1
Miscellaneous	5.8
TOTAL	<u>10.00%</u>

The composite averages are made up of the widely divergent proportions of different institutions, ranging in bonds from 81.6% to less than 1%, in preferred stocks from 28% to none, in common stocks from 24% to zero, in mortgages from 93.6% to none, and in real property from 55% to none at all.

Bonds, the most widely used medium of investment, give their holder the position of creditor evidenced by a contractual instrument for which a market usually exists. In return for their assumed safety and marketability the owner of bonds usually accepts a rate of return governed by the prevailing rental value of money.

The thirty universities and colleges afford no exception to the traditional theory that bonds are the most important form of investment for such trust funds, as shown by the fact that the average investment in bonds for Group A is 55.2% ; for Group B is 46.4% ; for Group C is 49.8% ; and for the Composite Fund is 49.8%. Were institution 5A excluded from this computation, since its bond account of only \$37,680 represents less than 1% of its total fund, the decided preference for bonds shown by the group of insti-

tutions having the smallest funds would be further emphasized through an increase from 55.2% to 60% in the proportion of their bonds to total funds.

The experience of this and a few other institutions, the proportion of whose funds invested in bonds falls far below the composite average, deviates so far from commonly accepted practice as to indicate either a lack of any definite investment policy or a willingness to sacrifice deliberately other considerations to the hope of obtaining a more liberal income. Whether or not such a policy, or lack of one, can be justified may be determined more fairly when, in a later discussion and comparison of collegiate and other institutional investments, suitable allowance is made for such pertinent factors as the quality of bond holdings and their distribution in the different fields of investment.

Preferred Stocks, a contingent promise to pay a fixed return prior to any rewards to the owners of the equity, have a limited share in the proprietorship and risks of the business. On account of being willing to take these risks, rather than to have the security of a contractual instrument, the preferred stockholder ordinarily is offered a higher return than the bondholder.

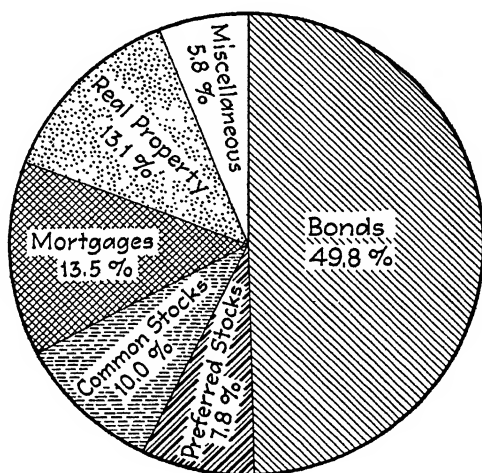
While many hold the belief that the preferred stock is not a suitable repository for capital, in that it neither occupies the position of creditor nor enjoys full ownership, others feel that its higher income return renders it very attractive, particularly where preferred issues are not preceded by debt or where they represent stable industries, such as public utilities. This difference of opinion is well illustrated by the thirty individual funds, of which six have less than one-quarter of one per cent or none at all, while twelve have considerably more than 10%, as compared with the composite average of 7.8%.

Though there are preferred stocks of companies dis-

Chart 1

Distribution of Composite Fund

According to Class of Investment



Bonds	\$ 267,454,130
Preferred Stocks	41,812,990
Common Stocks	53,571,370
Mortgages	72,645,660
Real Property	70,214,030
Miscellaneous	30,907,910
TOTAL	\$ 536,606,090

*Bonds and Stocks at November, 1931 market —
Mortgages, Real Property, Miscellaneous at stated values*

tinguished for financial strength, able management, and a record for having paid dividends continuously for years that are entirely suitable for trust funds, this class of securities probably should not represent much over 10% of a trust fund.

Common Stocks, which represent ownership, assume the full marginal hazard of the entrepreneur, thus holding infinite possibilities of unlimited profit or total loss. They have as their principal attraction to the true investor the fact that returns from them tend to vary inversely with the purchasing power of the dollar.

As it can probably be said that endowment funds acquire common stocks more often by bequest than by deliberate purchase, it is noteworthy that the Composite Fund contains a higher proportion of common than preferred stocks, namely 10% common against 7.8% preferred.

Among the groups the gradation toward common stocks increases with the size of the fund, from Group A with only 6%, Group B with 7.8%, to Group C with as much as 11.1%. In passing, two possible explanations for the greater use of common stocks by the larger institutions may be advanced. In the first place, the larger universities and colleges are likely to have more wealthy benefactors whose gifts are apt to be in the form of large blocks of stocks, perhaps given with the expressed wish that they not be sold. In the second place, assuming that the larger funds are managed by more sophisticated buyers, there would be more likelihood of their feeling themselves in possession of the requisite information to judge common stocks successfully than would the finance officer or committee of a smaller college. Perhaps, on the other hand, a few of these more worldly-wise buyers may have allowed an over-emphasis to be placed on the common stock theory during the "new era" of 1927-1929. In any event, it would seem a sound

policy were educational institutions to limit their investments in common stocks to 10%.

Mortgages, like real property, differ from securities chiefly in the fact that there exists for them no public market. Their disposal, if rendered necessary or deemed desirable, is a matter for individual negotiation. Mortgages evidence prior debt, repayable at a definite time, while property ownership implies acceptance of the full measure of risk together with whatever profit or loss may eventuate.

Well selected and carefully supervised mortgages on improved real estate, particularly on small residences, while entirely lacking in marketability—which colleges do not require from any considerable part of their funds—can provide an investment fund with security of the first water and income well above that obtainable in normal times from high-grade bonds. Their greatest drawback is that they necessitate time-consuming supervision. Consequently, in considering mortgage investments on a directly supervised basis, the college could properly confine itself to useful property in its own vicinity. In this way, there could be avoided many of the less satisfactory forms of mortgage lending, such as on construction projects based on high prospective rentals; on vacant property; and on farm land where, if crops are poor, or commodity prices are low, the college may find that it has loaned its funds on a non-income-producing security, which if taken over through foreclosure may be exceedingly burdensome and costly to carry.

Few universities or colleges have a treasury staff sufficiently large or trained to reach outside their own communities and periodically reappraise properties underlying their mortgages; check up payment of taxes and local assessments; ascertain that fire insurance policies do not lapse; collect amortization and interest when due; and perchance,

operate an income producing property taken over under foreclosure.

For the reason that probably few are so equipped, many institutions deem it advisable, when making mortgage loans other than on residential property in their own communities, to seek freedom from the problems incident to supervision or management under foreclosure by investing in guaranteed mortgages. The logic of such a policy, however, may be justified *only* if the guaranty is that of a company so ably managed and strongly financed that its guaranties may not be too largely affected even in times of wholesale default on mortgaged properties.

Though real estate mortgages, if carefully chosen, are inherently one of the safest classes of investment, they play a lesser part in the university scheme of investment than in that of the life insurance companies and savings banks. State laws generally permit savings banks to invest a major portion of their deposits in first mortgages within the state that do not exceed 60% of the appraised value of improved property and 40% of unimproved property. First mortgages on real estate are also a legalized investment for life insurance funds, and in most states for trust funds.

Real estate mortgages, even excluding real estate mortgage bonds which have been classified in this study with "bonds," are the second-largest class of investment, aggregating 13.5% of the Composite Fund. This may be accounted for in part by the fact that institution 5A has an investment in mortgages of \$4,869,470, which is 93.6% of its total fund. Such an abnormally large investment for so small a fund—the fifth from the smallest—is exceeded in amount, but not in proportion, only by institution 18B, whose \$9,429,220 face value of mortgages is 48% of its total fund, and by 28C, whose \$13,983,650 investment in mortgages is 39.9% of its total holdings.

Certainly the institution with such an unprecedentedly large percentage of its funds in real estate mortgages, and probably those others the proportion of whose mortgages is in excess of 20%, might wisely diversify their funds and increase their flexibility by effecting changes to other classes of investments at the maturity of some of their present loans.

On the other hand, many institutions whose mortgages fall much below 20% could properly increase their investment in them at the expense of their holdings in real property, possibly by selling realty received as gifts and taking back first mortgages in part payment. Certainly the difficulties and pitfalls encountered in supervising mortgages are less than those involved in the management of income-producing property.

Furthermore, in periods when bond prices are high and yields low, some bonds could profitably be converted into three to five-year amortizing mortgages and the proceeds of the amortizing payments be reinvested in bonds as they decline.

Real Property may properly represent a moderate part of a college's productive funds, but only if it is improved and situated in a growing community. Too often real estate in small towns depreciates in value. Likewise, vacant property that produces no income, no matter what its possibilities for appreciation, and farm lands from which earnings are not sure to be steady, should have no permanent place in a collegiate investment program, since the element of speculation makes them ill suited to any institution which is not operated for profit.

The proportion of real property among the holdings of each institution is probably less indicative of investment policy than is the proportion of any other class of investment, because owing to different methods of accounting and

reporting it may have been impossible to determine whether or not certain pieces of real property may properly be classified as income-producing endowment. Therefore, the fact that five of these institutions have 30% or more under this head may be more indicative of differences in accounting procedure than in investment policy.

Miscellaneous, in this study, includes cash; collateral, call, and sundry loans; acceptances; certificates of indebtedness; declarations of trust; advances receivable; special funds; and various dissimilar items. Further examination of or comment upon this relatively small classification is unlikely to be illuminating.

GENERAL POLICY AS TO CLASS OF INVESTMENT

As a single group the universities and colleges can hardly be said to show anything approaching uniformity in their policies with respect to the distribution of their funds among the different classes of investment. The fact that they hold a higher proportion of stocks than either life insurance companies, which have only recently been permitted to buy even preferred stocks, or savings banks, which in most states are not permitted to buy any stocks at all, is offset by an investment of only 13.5% in mortgages by the universities and colleges as against 38% by the life insurance companies, and 54.6%, as recently reported, for the mutual savings banks of this country.

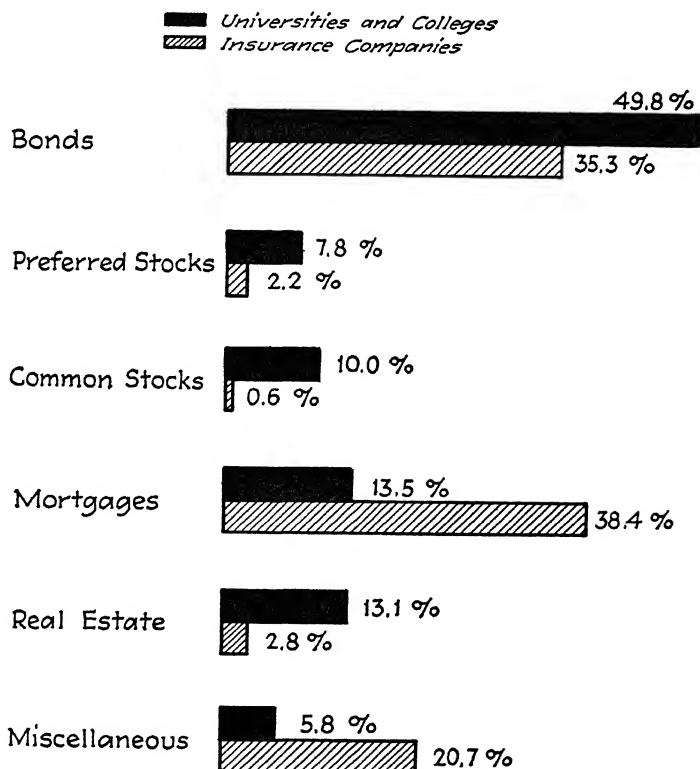
Chart 2 compares the productive funds of thirty universities and colleges with those of a group of fifty-two of the leading life insurance companies. The insurance companies' assets of eighteen and a half billions of dollars, as of a comparable date, were 91.6% of the total assets of all United States legal reserve companies. The chart shows the following comparative distribution of assets as to class of investment:

Chart 2

Comparative Distribution of Funds

Thirty Universities and Colleges and
Fifty-two Life Insurance Companies

According to Class of Investment



The preferred stock holdings of the fifty-two insurance companies are small because permission to acquire them has only recently been granted by law, although expansion in this direction has been one of the features of insurance investment in the last few years. Their common stocks represent a negligible proportion of their total investments, since scarcely any of the largest companies are permitted to buy them. The miscellaneous item for insurance companies consists principally of policy loans, which increase rapidly during periods of stress.

In considering the suitability of the present division of university investments by class, it should be observed that no indication whatsoever as to the quality of the securities is conveyed by the titles "bonds," "preferred stocks," and so forth. Countless poor bonds have performed much less creditably, both as to market price and stability of income, than good preferred or even common stocks. In fact, it is impossible to gauge accurately the soundness of this apportionment until the quality of these holdings has been examined.

Under ordinary circumstances, the following might be considered a theoretically ideal distribution, according to class of investment, of the productive funds of the average university or college, as compared with the actual distribution of the Composite Fund:

	IDEAL	ACTUAL
Bonds	50%	49.8%
Preferred Stocks	10	7.8
Common Stocks	10	10.0
Mortgages	20	13.5
Real Property	5	13.1
Miscellaneous	5	5.8
TOTAL	<u>100%</u>	<u>100.0%</u>

Under certain conditions where a college is adequately equipped to supervise mortgages as are, for instance, the

life insurance companies, a larger percentage invested in this field might be amply justified.

Among the three groups the one which comes closest to the proposed ideal figures is Group B, composed of institutions having separate funds of ten to twenty million dollars each. It is surprising, however, how few individual institutions approach either of these ideal proportions or the experience of the Composite Fund. While these deviations from ideal or common practice would indicate a marked lack of any comprehensive plan of distribution on the part of any but a few colleges, the distribution as to class is infinitely less important than the distribution as to quality, and considerably less significant than the distribution according to field of investment. Elaboration upon the need for a coherent investment plan will, therefore, best be deferred until these and other important factors have been analyzed.

CHAPTER IV

DISTRIBUTION OF FUNDS ACCORDING TO FIELD OF INVESTMENT

THE broadest division of investments among fields is into governmental obligations; corporate bonds and stocks; real estate bonds, mortgages, and property; and miscellaneous items. Amongst these, the Composite Fund of \$536,606,090 is distributed as follows:

Governmental]	6.7%
Corporate	60.2
Real Estate	27.4
Miscellaneous	<u>5.7</u>
TOTAL	100.0

The foregoing figures afford evidence that the great bulk of university and college investments depend upon corporate enterprises rather than upon governmental bodies, or real estate in any form.

Governmental securities divide naturally into those issued by the Federal government; by states, municipalities, and districts within the United States; and by foreign governments and various political subdivisions outside this country. Corporate securities are infinite in variety, but the usual partitions are: railroad, public utility, industrial, bank and insurance, of which the first three are ordinarily represented by bonds, preferred stocks, and common stocks; and the field of bank and insurance by common stocks only. Real estate investments fall under the general designations of mortgages, mortgage bonds, and real property. Miscel-

laneous is made up of sundry items, usually as varied as investing and accounting practices, but for the most part embraces loans, cash, and cash items.

The percentage of the Composite Fund which is invested in each of these fields, further subdivided as to class, is as follows:

Railroad Bonds	16.2%	
Railroad Preferred Stocks	1.0	
Railroad Common Stocks	1.4	
TOTAL RAILROADS		18.6%
Public Utility Bonds	17.9	
Public Utility Preferred Stocks	3.6	
Public Utility Common Stocks	1.9	
TOTAL PUBLIC UTILITIES		23.4
Industrial Bonds	8.3	
Industrial Preferred Stocks	3.2	
Industrial Common Stocks	4.9	
TOTAL INDUSTRIALS		16.4
U. S. Government Bonds	3.3	
U. S. Municipal Bonds	0.9	
Foreign Government Securities	2.5	
TOTAL GOVERNMENTALS		6.7
Real Estate Bonds	0.8	
Real Estate Mortgages	13.5	
Real Estate Property	13.1	
TOTAL REAL ESTATE		27.4
Bank and Insurance Stocks		1.8
Miscellaneous		<u>5.7</u>
GRAND TOTAL		100.0%

Chart 3 graphically portrays this distribution. With respect to United States government bonds, both the above figures and the chart are distorted by the large holdings of 25 C, amounting to 58.4% of its total and to over 90% of all the United States bonds in the Composite Fund. Without the holdings of this one institution the total of United

States governments would be less than one-quarter of one per cent of the Composite Fund, instead of 3.3% as shown.

Table II, following page 44, sets forth in dollars, at market values of November, 1931, the detailed subdivision of the funds of each institution, each group, and the Composite Fund among the different fields of investment.

RAILROAD INVESTMENTS

The railroads of the United States have long been one of the chief sources of security and income for the great public and semi-public funds of the Country as represented by life insurance companies, savings banks, and endowments for educational, religious, and charitable institutions. They are more than this—they are, as taxpayers, one of the largest single sources of income for the maintenance of Federal, state, and county governments. In a word, they are today, in some ways, as essential to the well-being of American civilization as is government itself.

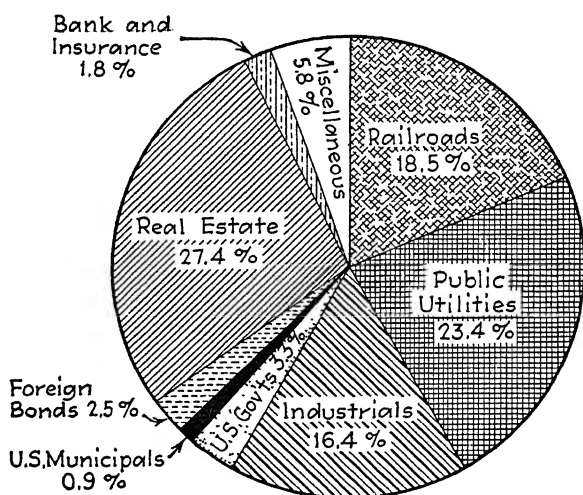
In the present depressed state of trade it is only natural that the future of the railroads should appear more obscure than it was; yet they are operating today at the highest degree of efficiency in their history. By many the current situation, as it affects the railroads, is regarded as so serious that predictions are freely made that the railroads have no future. This very lack of confidence has gone a long way toward paralyzing their credit.

It is true that during the depression the Country's carriers have been suffering heavy declines in earning power and credit. Many lines have been having difficulty in earning enough to meet current expenses and to refund maturing obligations; yet, owing to the aid of Government agencies, defaults thus far have been few.

The present difficulties of the railroads seem temporary—largely the result of the prolonged business depression

Distribution of Composite Fund

According to Field of Investment



Railroads	\$ 99,586,800
Public Utilities	125,646,750
Industrials	87,779,010
U.S. Governments	17,757,150
U.S. Municipals	5,024,560
Foreign Bonds	13,274,240
Real Estate	146,931,510
Bank & Insurance	9,698,160
Miscellaneous	30,907,910
TOTAL	\$ 536,606,090

with which, in fact, the short-term outlook for the carriers appears inescapably linked. It is true that the motor busses and trucks, waterways, and pipe-lines, which have been developed over a period of years, are making their competition increasingly felt. But these certainly have not progressed to the point where they will destroy the usefulness of the railroads.

While some of these forms of competition present new problems to the railroads and others intensify rivalry already existing, their effects are likely to be found to have been more serious on account of the present low volume of traffic. It seems reasonable to believe that the return of even a moderate degree of prosperity will find the railroads, for the time being at least, with revenues sufficient, with the aid of economies dictated by hard times, to support their obligations.

It would appear, therefore, that Trustees who have put so much of their productive funds into railroad securities need not feel unduly apprehensive about the future of the best railroad securities, provided Government regulatory bodies do not fail utterly to understand the basic functions of the railroads and to act accordingly.

Future regulation and taxation of competitive carriers, adjustments of railroad rate structures, and provisions for the economic operation of the railroads through consolidations are apt to be furthered by a growing understanding of the present place of the railroads, not only in the commercial but in the sociological arrangement of our civilization. These progressive measures will be hastened when the citizenship of the country fully comprehends its very direct personal stake in the railroads.

How great that financial stake is may be judged by the fact that close to 900,000 individual investors own \$7,000,000,000 par value of railroad stocks, and a very

great number—which cannot be accurately determined since most bonds pass from hand to hand without registration—own \$11,000,000,000 worth of unmatured funded debt in Class I railroads. An even larger number of individuals have an indirect stake in the carriers, in that the principal life insurance companies have \$2,600,000,000, or 17% of their resources, in railroad securities, mostly bonds, and the mutual savings banks have \$1,700,000,000, or 15% of their assets, in railroad bonds. The life insurance companies and the mutual savings banks together own \$4,300,000,000, or 40%, of the funded debt of the American railroads.

The fact that \$6,600,000,000 of the \$11,000,000,000 bonded debt is held by public and semi-public institutions affords an illuminating picture of the financial relationship of the railroads to the income sources of religious bodies, educational institutions, hospitals, foundations, charity organizations, trust companies, mutual savings banks, commercial banks, and insurance companies. It is clearly apparent from such figures that the continued welfare of the carriers is inextricably bound up, on the one hand, with the cultural development of our civilization and, on the other hand, with the economic security of a large number of institutions and millions of individuals.

When one considers the essential importance of the railroads as the main arteries of transportation, it appears that with the approach of normal times railroad earnings will increase—provided legislative remedies put the competition of all carriers on an equitable basis—so that the investments made in railroad securities by educational, philanthropic, and religious institutions will be secure and yield an adequate income to support their humanitarian purposes. The railroads have played, and will still play, a great part in our national prosperity.

As to railroad securities in general, as held by the institutions of higher education, the conclusions appear inevitable: first, that the great trunk lines must, for public welfare, be preserved in high efficiency; but, second, that the process of educating the public to this urgent necessity promises to be so slow that, meantime, many minor lines may degenerate and, perhaps, with some of the formerly great systems, suffer insolvency. Common sense demands, therefore, that universities and colleges limit their railroad holdings to senior liens on the essentially important mileage of roads so well fortified financially that they can survive, without material harm, a further prolongation of the depression.

Fortunately, it is easier to determine the soundness of railroad securities than any others, as more complete, uniform, and reliable information on all phases of railroad operation and finance is available than in any other investment field.

Long ago some states recognized the need of limiting by law the nature of investments for trust and savings funds. Aside from United States governments, railroad issues comprise the field of widest choice among such "legal" securities. In fact, adequately secured bonds of American railroads have long been one of the most highly regarded and widely used forms of corporate obligations.

The fact that this Composite Fund shows a somewhat lesser investment in railroad than in public utility securities—18.6% against 23.4%—doubtless results from the greater depreciation in market value suffered by the former, particularly among the stocks. Individual institutions vary widely in their proportion of rails, with seven having under 10% in this field and a like number over 30%. The largest single rail commitment by 24 C, of 47%, obviously represents too great reliance upon one form of endeavor.

DISTRIBUTION OF FUNDS ACCORDING TO FIELD OF INVESTMENT

(For percentages of total funds invested in each field see Table XII showing "Composite Picture of Each University or College Fund")

UNIVERSITIES AND COLLEGES	RAILROADS				PUBLIC UTILITIES				*INDUSTRIALS				GOVERNMENTALS			REAL ESTATE				BANK AND IN- SURANCE STOCKS	MISCEL- LANEOUS	TOTAL FUND	UNIVERSITIES AND COLLEGES
	BONDS	PREFERRED STOCKS	COMMON STOCKS	TOTALS	BONDS	PREFERRED STOCKS	COMMON STOCKS	TOTALS	BONDS	PREFERRED STOCKS	COMMON STOCKS	TOTALS	U. S. GOVERNMENTS	U. S. MUNICIPALS	FOREIGNS	MORTGAGE BONDS	MORTGAGES	REAL PROPERTY	TOTALS				
1 A	\$ 757,780	\$ 155,960	\$ 113,560	\$1,027,300	\$1,151,920	\$ 6,120	\$ 4,320	\$ 1,162,360	\$ 111,300	\$ —	\$ 1,560	\$ 112,860	\$ 223,510	\$ 19,600	\$ 131,140	\$ 2,400	\$1,220,000	\$ 159,550	\$ 1,381,950	\$ 211,200	\$ 162,300	\$ 4,432,220	1 A
2 A	1,517,680	40,000	87,610	1,645,290	1,588,140	86,150	28,140	1,702,430	202,900	—	46,000	248,900	—	—	—	187,900	237,100	172,670	597,670	107,450	123,160	4,424,900	2 A
3 A	1,401,220	59,870	45,400	1,506,490	1,479,700	336,720	86,200	1,902,620	207,420	89,740	18,060	315,220	—	—	63,200	17,000	126,200	—	143,200	10,370	275,940	4,217,040	3 A
4 A	574,440	48,280	50,520	673,240	725,810	387,370	60,420	1,173,600	815,600	398,250	247,500	1,461,350	—	—	105,400	201,450	447,230	29,510	678,190	—	62,740	4,154,520	4 A
5 A	—	—	—	—	4,100	—	—	4,100	18,930	—	—	18,930	—	5,100	7,960	1,590	4,869,470	34,400	4,905,460	—	259,930	5,201,480	5 A
6 A	987,990	373,580	202,330	1,563,900	1,062,260	599,000	295,750	1,957,010	481,600	203,050	245,080	929,730	—	—	—	—	50,540	337,660	388,200	171,020	21,570	5,031,430	6 A
7 A	50,850	214,050	23,200	288,100	—	165,950	—	165,950	136,400	15,360	95,550	247,310	13,100	186,380	111,500	87,100	1,282,900	1,181,220	2,551,220	—	62,800	3,626,360	7 A
8 A	1,595,510	223,070	63,250	1,881,830	1,682,110	93,280	134,080	1,909,470	430,750	39,830	148,790	619,370	—	8,600	472,350	—	252,600	1,070,040	1,322,640	22,690	61,360	6,298,310	8 A
9 A	634,430	42,000	130	676,560	325,480	407,450	—	732,930	458,860	399,950	408,080	1,266,890	—	—	4,600	39,600	901,060	1,098,010	2,038,670	19,000	20,200	4,758,850	9 A
10 A	2,078,510	148,000	135,200	2,361,710	1,495,970	624,300	—	2,120,270	449,300	166,040	1,400	616,740	—	—	951,500	—	552,800	—	552,800	—	47,240	6,650,260	10 A
11 A	289,180	—	—	289,180	2,278,260	—	5,350	2,283,610	363,900	5,070	14,570	383,540	—	—	69,350	126,100	663,280	2,212,800	3,002,180	10,730	236,900	6,275,490	11 A
12 A	2,083,370	50,800	67,790	2,201,960	2,683,790	177,400	75,970	2,937,160	1,157,550	27,100	168,560	1,353,210	—	—	516,550	98,100	42,400	—	140,500	345,950	703,680	8,199,010	12 A
13 B	1,321,590	173,510	39,810	1,534,910	2,420,050	52,660	351,910	2,824,620	752,000	100,020	239,190	1,091,210	377,240	3,700	129,800	9,980	2,062,130	608,880	2,680,990	81,080	351,620	9,075,170	13 B
14 B	816,950	3,450	230	820,630	321,950	10,000	—	331,950	5,280	480	3,000	8,760	87,290	919,730	597,670	450	—	1,395,800	1,396,250	15,480	4,790,020	8,967,780	14 B
15 B	2,188,600	171,460	102,360	2,462,420	1,047,900	958,090	80,130	2,086,120	938,000	506,340	176,120	1,620,460	—	—	14,730	—	1,771,500	—	1,771,500	—	114,810	8,070,040	15 B
16 B	1,463,700	219,210	146,360	1,829,270	1,530,170	39,130	92,500	1,661,800	1,186,330	233,830	704,030	2,124,190	6,060	2,000	608,300	20,500	722,500	3,530,820	4,273,820	1,292,000	—	11,797,440	16 B
17 B	4,490,350	98,960	88,300	4,677,610	3,217,350	3,850,810	227,840	7,296,000	610,330	512,530	208,330	1,331,190	—	—	—	3,900	2,285,850	309,080	2,598,830	18,910	—	15,922,540	17 B
18 B	249,320	2,700	72,190	324,210	359,500	30,220	105,680	495,400	2,249,600	3,503,760	2,852,020	8,605,380	—	2,000	280,280	830	9,429,220	385,300	9,815,350	50,630	90,820	19,664,070	18 B
19 B	2,220,590	36,050	38,000	2,294,640	8,265,490	418,100	9,700	8,693,290	742,700	107,130	70,550	920,380	—	34,800	1,851,190	424,000	915,470	455,400	1,794,870	2,400	1,000,000	16,591,570	19 B
20 C	411,670	9,900	3,640	425,210	1,108,380	—	647,170	1,755,550	542,160	41,640	800,190	1,383,990	120,070	806,300	151,910	91,600	4,092,550	13,840,200	18,024,350	1,219,620	1,520,270	25,407,270	20 C
21 C	6,593,810	—	—	6,593,810	6,281,060	27,640	33,510	6,342,210	3,105,000	—	10,880	3,115,880	—	920	437,600	867,310	2,325,170	3,558,880	6,751,360	—	1,791,080	25,032,860	21 C
22 C	6,391,130	343,900	244,380	6,979,410	3,569,710	1,221,130	306,110	5,096,950	1,820,840	1,008,300	299,530	3,128,670	—	—	—	1,980	1,155,810	1,346,100	2,503,890	160,000	—	17,868,920	22 C
23 C	2,105,090	106,000	855,710	3,066,800	1,817,900	674,850	602,280	3,095,030	1,911,840	1,882,080	1,135,710	4,929,630	—	807,000	141,500	193,300	3,729,400	411,940	4,334,640	547,420	—	16,922,020	23 C
24 C	10,971,010	28,040	168,450	11,167,500	4,311,660	177,570	355,130	4,844,360	1,691,240	158,750	140,860	1,990,850	129,070	116,160	154,140	268,800	4,243,190	639,150	5,151,140	135,360	71,620	23,760,200	24 C
25 C	44,180	—	—	44,180	203,850	—	—	203,850	175,730	—	—	175,730	16,548,620	956,230	5,400	60,130	—	10,187,930	10,248,060	10,000	166,320	28,358,390	25 C
26 C	7,218,520	60,660	733,130	8,012,310	7,522,900	1,259,450	1,008,800	9,791,150	1,890,000	134,400	3,986,090	6,010,490	—	—	—	—	3,346,620	277,430	3,624,050	1,631,750	1,133,880	30,203,630	26 C
27 C	6,055,300	302,260	741,120	7,098,680	7,957,260	475,900	459,140	8,892,300	1,849,760	473,420	4,044,050	6,367,230	—	373,940	2,324,830	679,200	612,800	606,100	1,898,100	421,700	3,330,710	30,707,490	27 C
28 C	3,504,030	534,000	382,320	4,420,350	3,942,240	344,400	—	4,286,640	1,703,700	624,580	49,370	2,377,650	50,190	4,260	50,200	6,940	13,983,650	5,410,020	19,400,610	—	4,428,320	35,018,220	28 C
29 C	8,382,100	1,233,690	1,235,630	10,851,420	7,027,930	5,334,570	2,028,500	14,391,000	5,854,700	4,090,440	4,564,020	14,509,160	—	77,840	1,183,240	6,660	9,545,560	8,508,910	18,061,130	1,261,940	3,389,420	63,725,150	29 C
30 C	10,570,130	598,360	1,699,390	12,867,880	20,457,170	1,724,690	3,325,160	25,507,020	12,653,600	2,330,190	5,530,320	20,514,110	202,000	700,000	2,909,900	675,000	1,778,660	12,446,230	14,899,890	1,951,460	6,691,200	86,243,460	30 C
Group A (1 A-12 A)	11,970,960	1,355,610	788,990	14,115,560	14,477,540	2,883,740	690,230	18,051,510	4,834,510	1,344,390	1,395,150	7,574,050	236,610	219,680	2,433,550	761,240	10,645,580	6,295,860	17,702,680	898,410	2,037,820	63,269,870	Group A (1 A-12 A)
Group B (13 B-19 B)	12,751,100	705,340	487,250	13,943,690	17,162,410	5,359,010	867,760	23,389,180	6,484,240	4,964,090	4,253,240	15,701,570	470,590	962,230	3,481,970	459,660	17,186,670	6,685,280	24,331,610	1,460,500	6,347,270	90,088,610	Group B (13 B-19 B)
Group C (20 C-30 C)	62,246,970	3,216,810	6,063,770	71,527,550	64,200,060	11,240,200	8,765,800	84,206,060	33,198,570	10,743,800	20,561,020	64,503,390	17,049,950	3,842,650	7,358,720	2,850,920	44,813,410	57,232,890	164,897,220	7,339,250	22,522,820	383,247,610	Group C (20 C-30 C)
Composite (A, B & C)	86,969,030	5,277,760	7,340,010	99,586,800	95,840,010	19,482,950	10,323,790	125,646,750	44,517,320	17,052,280	26,209,410	87,779,010	17,757,150	5,024,560	13,274,240	4,071,820	72,645,660	70,214,030	146,931,510	9,698,160	30,907,910	536,606,090	Composite (A, B & C)

* Includes undetailed bond account of approximately \$4,000,000.

* Includes all sundry bonds and stocks.

University funds exhibit in the railroad field a wise concentration in bonds as opposed to common or even preferred stocks. The tightening cords of regulation have long made it evident that, while the creditors of the railroads might be protected, the owners would be unlikely to make profits commensurate with their risks. The Composite Fund ratio of bonds to stocks is for railroads 7 to 1; for utilities, 3 to 1; and for industrials, 1 to 1.

PUBLIC UTILITY INVESTMENTS

Another field of corporate investment, which in recent years has attracted increasing favor from conservative investors, is that of public utilities. Prior to the World War, the better class of railroad issues, among corporate obligations, provided substantially the only outlet for the funds of the larger and more sophisticated investors. So pronounced was this tendency that at times when such railroad mortgages were selling from a 4% to a 4¼% basis, it was generally assumed that almost any public utility issue should yield better than 5%.

More recently the demand for public utility issues, coupled with some loss of confidence in railroad bonds, has resulted in the former assumed differential in yield being largely eliminated. One of the outstanding developments in security markets in the past few years has been the achievement by the securities of public utility companies of a position fully equal to that long enjoyed by those of the railroads.

Under private ownership, in most cases, the public utility companies of the Country, which divide themselves into traction, water, telephone, gas, and electric light and power companies, have been developed to a magnitude and general efficiency far surpassing that in any other country.

Street Railway Companies, while as old as the railroads,

have suffered such a diminution in earnings as a result of the tremendous development of automotive vehicles, that only the strongest are able to meet their obligations, while many street, suburban, and interurban railways have been abandoned altogether. Moreover, as under even the best conditions these companies are handicapped by more labor difficulties than any of the other utilities, the present outlook for street railway companies does not encourage investment in them.

Water Supply Companies in cities are usually owned by the municipalities, as water supply, having to do with public health and fire protection, is possibly a public rather than a private undertaking. Though there are many private water supply companies, in which it is estimated that approximately a billion dollars is invested, this investment is scattered among so many companies that available issues are small in amount, with unsatisfactory markets. Consequently, the water supply utilities do not afford an important investment medium for university and college funds.

Telephone Companies, in developing the use of the telephone in this country, have shown a remarkable growth. With the extension of the service provided by a number of small companies, it long ago became evident that the telephone business was a natural monopoly, since each subscriber wanted to be in a position to talk to any other subscriber. As a result, one company, the American Telephone & Telegraph Company, acquired all the most important telephone systems and interconnected them with its own long distance system. This outstanding public utility is owned by the public to a greater extent than any other corporation.

The bonds and debentures of the constituent companies of this telephone system have long ranked among the highest grade investments in the world.

Gas Companies, the oldest of the utilities, have had a fairly steady and large growth through the years, in spite of the fact that the nature of their business has changed radically as a result of the introduction of electric lighting. By reducing the cost of production and by developing the use of gas for industrial and general heating purposes, the gas companies have offset the steady loss in the lighting business and materially increased the volume and earning power of their business.

In the last four years there has been considerable activity in the development of the natural gas business and in the extension of long pipe lines from which gas is sold chiefly to industrial plants and to gas companies as a substitute for artificial gas. But since the amount of natural gas available cannot be definitely determined, there is a serious hazard involved in long-term investments based on this kind of property. There is little hazard, however, to the old established companies that purchase natural gas in substitution of their own artificial gas, since, if the supply of natural gas should fail, these companies could go back to artificial gas.

Electric Light and Power Companies far surpass all other utilities in magnitude and, excepting the telephone utilities, in rapidity of growth. The uses of electricity are manifold, and new ways of applying it in industries and for domestic use are being developed constantly. Broadly speaking, the securities of the electric companies have a high standing and many of them within the past seven years have been made legal investments in the states of New York, New Jersey, Massachusetts, and Connecticut. The bonds of the operating companies, engaged solely in the electric business, have such an enviable record in the payment of interest and principal that they have been justifiably attractive investments for collegiate funds.

The public utility business, as a whole, has made tremendous gains. In fact, the utilities are coming through the depression with a record that would seem to establish their high position among, if not at the top of, our soundest industries. The growth of well organized operating companies, of course, has been due to the fact that they have met an increasing demand for their commodities, with progressive efficiency.

The foregoing applies to operating companies, but the development of super-holding companies has undoubtedly, in some cases, brought with it accounting and financial methods now suffering severe criticism with accompanying demands for legislative regulation.

The characteristics and activities of these holding companies are three: first, companies owning all or a majority of the voting stock of holding or operating subsidiaries; second, management companies which take an active part, for a specified fee, in managing and directing affiliated companies in which they have substantial but not controlling interests; and, third, investment companies formed either for investment purposes solely or as a vehicle through which to effect mergers or regroupings of operating or holding companies.

From the point of view of its financial set-up, the basic characteristic of the holding company lies in the fact that its assets consist of equities in other companies, so that to meet interest payments on its own bonds it is dependent on dividend payments on common stocks of operating subsidiaries. The present period of financial stringency has exposed weaknesses in many such pyramids and rather conclusively demonstrated that the securities of most holding companies are too lacking in inherent quality to be suitable investments for the productive funds of universities and colleges. It is true, however, that these disabilities do not

attach to the securities of certain holding and management companies, whose activities are an extremely useful factor in the upbuilding of the utility industry.

On the other hand, all classes of public utility operating company securities have had a relatively remarkable degree of stability of earning power, interest and dividend payment, and market price during the 1929-1932 period of financial and economic depression that has earned for them increasing favor with the most conservative institutional and individual investors.

This growing preference for utilities is evident not only in the Composite Fund and each of its three groups, but is also strikingly emphasized in many individual lists. Only six of the thirty universities and colleges have less than 10% of their funds invested in the public utility field, while no less than fifteen, or half of them, have about 30% or more so invested.

This leaning toward utilities is particularly marked in preferred stocks, of which the Composite Fund holds four times as much as in railroad preferred, whereas the percentage in bonds and common stocks is not greatly at variance in these two investment fields. Several of the institutions have more than 10% of their total funds in public utility preferred stocks. The 25% so invested by fund 17B, however, probably represents an unwise degree of concentration.

INDUSTRIAL INVESTMENTS

The term "industrial" is a classification of convenience rather than of logic, since commonly it is used to refer to virtually all private enterprises outside the railroad, public utility, real estate, bank, and insurance fields. Among the many forms of endeavor which it represents are the extractive industries, fabricating and manufacturing of all

kinds, wholesale and retail merchandising, and various service activities.

There are important distinctions between the aforementioned fields of investment. The public utilities are natural monopolies, the railroads are becoming created monopolies, while the fundamental character of the industrials is competition.

In selecting railroad and public utility securities, the investor has the advantage of frequent, standardized, sworn-to financial reports on corporations which, to a large extent, operate under like conditions wherever located. On the other hand, industrial enterprises, which differ in their methods of accounting and in the frequency of reporting, afford no common denominator by which the investor may readily measure the risks of widely divergent types of business. It is the great differences in the conditions surrounding such a wide variety of industries that renders it extremely difficult to survey accurately the industrial field or to make dependable deductions as to the value of industrial securities.

Another important distinction is that in the railroad and public utility fields there is a very definite ceiling of earnings restricted by Federal or state regulation while in the industrial field the absence of regulation and the presence of competition increase both the risk and the possibilities for profit.

These distinctions make obvious the fact that the risks in industrial securities are greater, and, therefore, that they do not form as sound a basis for credit, but, conversely, that the opportunity for growth and profit accruing to their stockholders is superior to that offered by railroads and public utilities. Hence the logical conclusion that industrial bonds and preferred stocks, with a few exceptions, are less satisfactory as pure investments, but that their common

stocks, over a period of years, are more apt to compensate the holder for the risks of ownership.

The proportion of all classes of industrial securities in the Composite Fund properly is somewhat less than that of rails and considerably below that of utilities, and would doubtless be much smaller were it not for the fact that large donations are apt to be in industrial stocks. This latter fact probably accounts for the Composite Fund holding nearly half again as big a commitment in industrial common stocks as in rail and utility equities combined.

Industrial holdings among the individual funds are quite unbalanced, with half of them under 10%, and nine at about 20% or over, of which five are in Group C. The maximum proportion in this form, 43.8%, is held by 18B, which also has the greatest industrial common stock percentage, nearly 15% of its total funds. Around 13% in industrial equities is also shown by 26C and 27C. These unusually large percentages prove in each case, upon examination, to result from a disproportionate investment in one company, apparently received as a gift. Instead, therefore, of promising participation along a broad front in future corporate earnings and growth, these investments depend on one enterprise each and thus violate the principles of sound diversification.

GOVERNMENTAL INVESTMENTS

Here again has been used a convenient grouping of unlike instruments—United States government bonds, municipal bonds, and foreign government bonds. Their subdivisions and attributes, however, are easily delineated.

United States Government Bonds offer the acme of safety and marketability, but with correspondingly little yield. Since marketability is ordinarily of minor importance to a university endowment, there is no reason, save

expectation of proximate use of principal, for the holding of large amounts of United States bonds. Any large use of such tax exempt bonds, when returning low incomes, would seem to be wasteful, because such issues are worth more to other investors than to an educational institution not subject to taxation. On the other hand, obligations of the United States might well be held by the average university or college to the extent of 2% or 3% of its total funds, as providing an interest-bearing substitute for whatever amount of cash might be serviceable in any emergency. Consequent sacrifice of income would be but moderate and would be amply compensated for by prime security and ready availability.

As previously noted, the Composite Fund appears to have 3.3% of its assets invested in obligations of the United States of America, but some 93% of this is held by institution 25C alone, without which the Composite Fund would show less than one-fourth of one per cent in this field of investment. Aside from this one institution, only three have 1% or more in United States governments, six have negligible amounts, and twenty have none at all.

Municipal Bonds, as distinguished from government bonds, include the bonded obligations of states, counties, districts, cities, towns, and other political subdivisions within the United States. As municipal bonds are exempt from all Federal taxes, except inheritance taxes, and in some states from local taxes also, the better ones ordinarily sell to yield but little more than United States government bonds and somewhat less than high-grade railroad or public utility bonds. Since the income from school funds is not taxable, colleges can ill afford to pay for the tax-exemption feature and accept the consequent low interest return. Moreover, municipals possess only fair marketability.

For the foregoing reasons, it is not surprising to find

that in the Composite Fund the holdings of the states, territories, and municipalities therein are very small, amounting in fact to less than 1% of the aggregate. Twenty of the institutions have either a negligible investment or none at all in municipals, thus indicating that only a few universities hold municipals as a deliberate policy. Only five institutions, in fact, have 3% of their funds in this investment field.

Limited as it has been by legislative restrictions, 14B has invested an extremely heavy proportion of its funds in the obligations of the state in which it is located, or in political subdivisions thereof; namely, 10.2% of its total fund, or 33% of its total investment in bonds. The resultant low rate of interest received on such a considerable portion of its fund has apparently proved an incentive to the purchase of high yielding obligations with the remaining moneys at its disposal. Thus we find that it has placed well over half a million dollars in obligations of foreign governments whose credit standings have been seriously impaired within the recent past.

With such a situation as this, in which apparently the university is attempting to compensate itself for the loss of yield on its municipal issues, by taking undue risks in the foreign field, it might be wise to lighten the municipal list and eliminate the foreign issues, should they recover from their present depressed market prices, and substitute therefor sound railroad and utility mortgage bonds, such as are authorized for trust funds in its state.

Foreign Government Bonds constitute a field within which there is an extremely wide range of investment merit. On the one hand are the obligations of governments recognized to have very high credit standing, such as Canada and Great Britain, and on the other, the innumerable issues of minor countries and political subdivisions. In general,

foreign bonds present a multitude of factors: political, social, and economic, which must be taken account of in determining the merits of any particular issue, but which to most people in the United States are unknown. The internal difficulties arising from the unstable government of many minor republics, like the external difficulties today affecting many of the larger foreign countries of both hemispheres, involve risks not wholly consistent with any conception of trusteeship.

Since foreign bonds are held by many universities, however, whether justifiably or not, it may be appropriate to call attention: first, to the contrast between foreign obligations and the domestic promises-to-pay that the investor is normally willing to buy, and; second, to the respect wherein the interests of colleges and other holders of foreign obligations may be safeguarded by such centralized efforts as have long been in vogue in England, France, and other European countries.

In the first instance, the ordinary investor deems it indispensable, in making the simplest investment—namely, a loan upon real estate—to know all about the property and the character of the borrower and to pay much attention to establishing his claim upon such a legal basis that he can, in case of default, foreclose the mortgage and seize the property. By contrast, the average buyer of foreign bonds knows little about those conditions which may affect the ability or willingness of the present generation or their descendants to pay the debt at maturity. Foreign government bonds, moreover, differ from bonds with definite mortgage security in that they have no foreclosure provision, so the holder's chief protection is the desire of the issuer to maintain credit for future financing.

In the second respect, though America is relatively a newcomer in the field of foreign financing and has loaned

more overseas than any other country, it has done so apparently without such machinery for judiciously selecting foreign investments and handling defaulted issues as is used to protect the foreign bondholders of those European countries having a more mature experience in foreign lending.

The British Corporation of Foreign Bondholders, organized in 1868 and reconstituted under Act of Parliament in 1898, undertakes through a truly representative Council to protect the interests of the holders of foreign securities and to negotiate for the resumption of payment or settlement of issues in default. The French Association organized in 1898 serves as a clearing house of information and takes the initiative in defending the interests of those holding domestic and foreign issues, but primarily the latter, which are in default. The protective organizations of other countries in Europe are adaptations of the more elaborate ones which England and France require on account of their doing most of the financing originating on that continent.

Until our foreign lending, often originated by conflicting interests, is guided by a centralized organization so strong as to command the support of the Department of State, the holders of threatened and defaulted bonds are not likely to be able to bring sufficient timely pressure from outside to secure an equitable allocation to various bond issues of the available resources.

The question naturally arises as to whether there may not be a real need for a comparable protective organization in this country, since out of the eight billion dollars of foreign issues originated here in the past ten years, one billion is now in default, while most other issues are selling at only a fraction of the price at which they were originally marketed. If, haply, such an American association, which already is under consideration, should be formed and have

such a measure of governmental support as is afforded the European associations, then university and college trustees might well place a limited portion of their funds in selected foreign issues without incurring excessive risks which now surround much of such lending. Under such conditions money might be exported under terms which would go a long way to increase the lenders' rate of return, to enlarge the borrowers' earning capacity, to in turn stimulate the foreign trade of this country, and finally to further that international comity on which enduring prosperity is so dependent.

But until the time comes when such protection is assured the American holder of foreign bonds, as is afforded Great Britain's investors by its Corporation of Foreign Bondholders, those colleges which content themselves with modest rates of interest from sound domestic issues are apt to net a higher average rate of income over a period of years. In the light of events during the past year or so, such an attitude has been more than justified, since most foreign bonds have suffered extreme market depression in sympathy with the political difficulties which have beset foreign governments.

The Composite Fund has 2.5% in bonds of political entities outside the United States, of which, fortunately about half are obligations of the Dominion of Canada and its subdivisions. Quite a number of institutions have rather substantial proportions of foreign bonds, ranging as high as 14%, with no less than seven standing at 5% or more.

Groups A and B, which include the colleges having small and medium-sized funds respectively, show a much greater leaning towards foreign bonds than does Group C.

Of the thirty universities or colleges, it is somewhat startling to find that sixteen have more foreign bonds than United States governments and municipals combined,

while only four have more United States governments than foreign governments. The following figures summarize the relationship of the individual institutions' holdings of governmental obligations:

Foreign bonds exceed U. S. governments and municipals combined	16
Foreign bonds exceed U. S. governments alone	6
Hold no governmentals at all	4
Foreign bonds less than U. S. governments	4
TOTAL	<u>30</u>

Such a contrast between the holdings of United States government bonds and those of foreign peoples is indicative of a desire on the part of many institutions for high income rather than security. It may fairly be doubted whether this possible high yield is sufficient compensation for the risks involved.

REAL ESTATE INVESTMENTS

"Real estate" is another logical as well as convenient term for designating the field in which most institutions of learning have a considerable investment—in the form of mortgage bonds, mortgages, or real property, as heretofore enlarged upon in considering the distribution of investments according to class.

The proportion of real estate investments to the total of the Composite Fund is shown to be slightly greater in Table II than in Table I, due simply to the fact that in the latter 0.8% of real estate bonds were classified under "bonds" and not under "real estate." Incidentally, many real estate bonds have been less satisfactory investments than mortgages directly placed or real property capable of producing an adequate income. Mortgage bonds, for the most part, have been based on projects in a promotional stage and for which the demand often has been found to

be less than was anticipated in the offering prospectus. These seemingly should be avoided entirely or chosen with the utmost care. Group A is the only one which has so much as 1% of its funds invested in this way.

BANK AND INSURANCE STOCKS

Bank Shares constitute a rather specialized field of investment, but one not without recognition, as evidenced by the fact that the savings bank laws of some states allow the purchase of bank stocks to the exclusion of all other equities. While the possible double liability of the bank shareholder cannot be lightly dismissed by a fiduciary, it is true that the records of many well managed banks have been enviable, and that their shares have represented one of the most conservative means of participating in the long-term growth of equities.

From the periodic published statements made by all banks and trust companies, it is a simple matter to figure the book value of their shares; but no wholly satisfactory conclusions can be arrived at from such calculations on account of the lack of uniformity in their accounting practice. Consequently, no conclusions should be drawn from such published reports without considerable mental allowance being made for the personnel of the management whose figures are under review.

Another important factor to consider is the types of business in which the bank specializes; namely, whether it confines its activities to the usual banking and trust services, or whether in prosperous times a considerable part of its earnings is derived from other functions.

Then it is essential, in selecting bank stocks, to have a first-hand knowledge of the location of the institutions, and of the changing conditions within the territory served.

All of these factors should be carefully weighed, in

addition to the statistical information furnished by the banks themselves, in purchasing or holding bank shares for the investment of university or college productive funds.

Insurance Stocks, if well selected, are attractive to those who are prepared to make some investments of a mildly speculative character that may require patience in waiting for profits. In one respect, at least, the best insurance stocks resemble the best bank stocks, for both, in normal times, must frequently be bought at prices which seem extraordinarily high as compared with the current dividends. But, just as it is thoroughly understood by some experienced investors that selected bank stocks yield high average returns through accretion in value, so those colleges most familiar with insurance stocks find opportunities through them for securing average yields as large or larger than is afforded by bank stocks.

Some insurance companies in the past have been in the habit of making extra distributions of a very substantial kind at irregular intervals, so that the holders of insurance stocks have averaged a high annual return. Excellent results have followed from a continued holding of the stocks of the best insurance companies.

Sagacity in the selection of well known insurance stocks is, however, both highly important and exceedingly difficult. It is highly important that the buyer of insurance stocks should clearly recognize the fact that the insurance business, like every other, involves risks that may at times become serious and even alarming. Conflagrations occasionally inflict serious injury upon even the best fire insurance companies; epidemics at times cause disastrous losses to life insurance companies; and of late so-called crime waves have been most costly to those companies providing indemnity against defalcations, theft, burglary, and so forth.

On this account it follows that the utmost care in the

selection of insurance stocks must be accompanied by a willingness on the part of college trustees to hold such investments through any time of lessened profits and dividends.

The Composite Fund shows 1.8% invested in bank and insurance stocks combined, with a gradation from Group A at 1.4% to Group B at 1.6%, and finally to Group C at 1.9%—thus following the same trend noticeable in other forms of common stocks. Individual institutions vary widely with 19 showing less than 1% and seven over 3%. Manifestly, the 11% so invested by 16B represents, under ordinary circumstances, far too great a concentration of its funds in the field of banking and insurance.

COMPARISON OF FUNDS OF UNIVERSITIES AND LIFE INSURANCE COMPANIES

Chart 4 compares, with respect to the field of investment, the following distribution of the Composite Fund of 30 universities with the combined investments of 52 life insurance companies:

FIELD	UNIVERSITIES	LIFE COMPANIES
Railroad	18.6%	16.2%
Public Utility	23.4	10.0
Industrial	16.4	3.3
Governmental	6.7	8.6
Real Estate	27.4	41.2
Bank & Insurance	1.8	.0
Miscellaneous	5.7	20.7
TOTAL	100.0	100.0

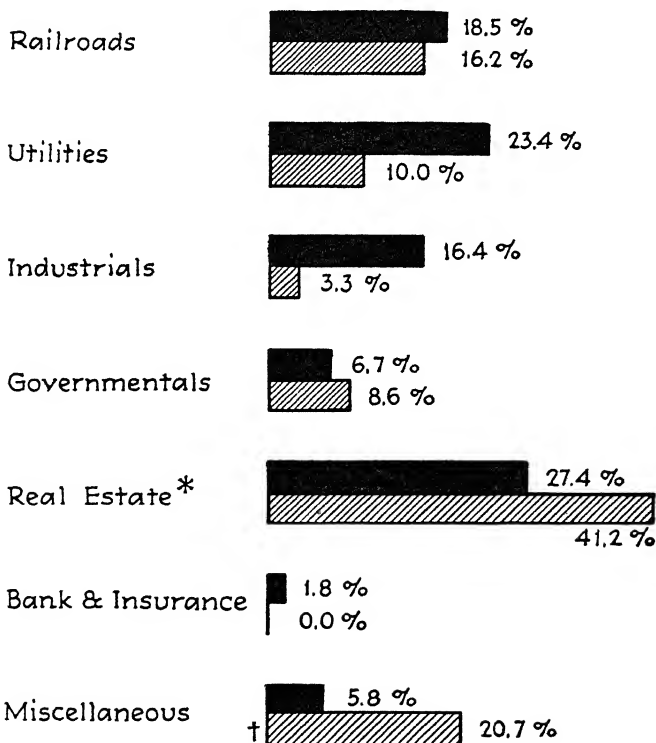
The figures do little more than reflect the same tendencies shown by Chart 2; namely, the insurance companies' smaller investment in utilities and industrials, the latter being brought down largely by their smaller holding of stocks; the larger proportion of their funds in real estate mortgages and miscellaneous, the latter brought up by mounting policy loans. These proportions can be exam-

Comparative Distribution of Funds

Thirty Universities and Colleges and
Fifty-two Life Insurance Companies

According to Field of Investment

 *Universities and Colleges*
 *Insurance Companies*



* Includes mortgages

† Policy and collateral loans, cash, and other assets

ined to better advantage when consideration is given separately to the distribution of bonds and preferred stocks between fields of investment.

DISTRIBUTION OF CLASSES OF SECURITIES ACCORDING TO FIELD OF INVESTMENT

Chart 5 shows how the bonds, preferred stocks, and common stocks of the Composite Fund are divided between the several fields.

The proportional distribution of bonds follows:

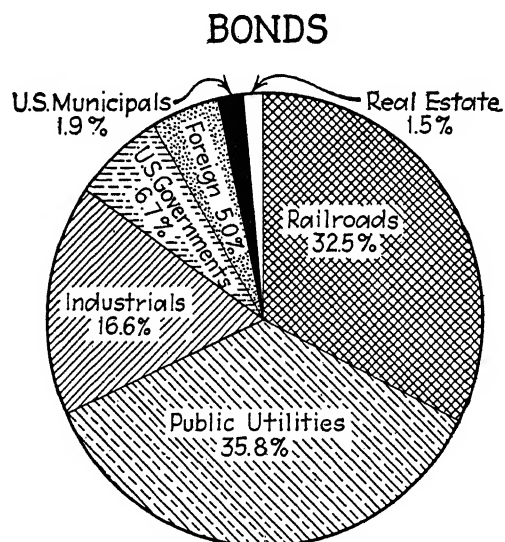
Public Utility	35.8%
Railroad	32.5
Industrial	16.6
Governmental	13.6
Real Estate	1.5

Public utilities hold first position by only a small margin over railroads—the two together accounting for over two-thirds of the total bond investment. This concentration of bondholdings in the two most stable fields, based upon essential services of a monopolistic nature, is entirely in accord with accepted investment practice.

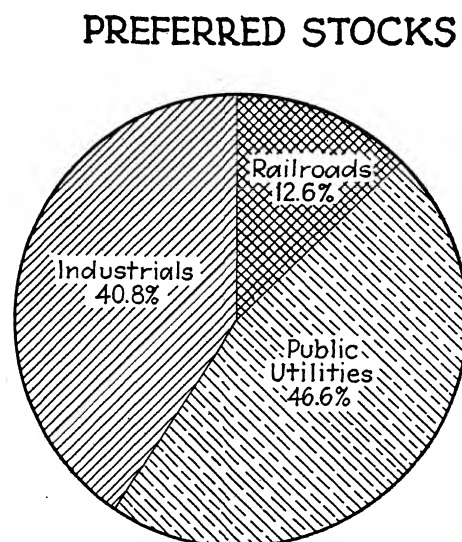
Chart 6 sets forth the relative percentages of the various bond accounts invested in the three leading fields of corporate bonds—railroad, public utility, and industrial. Utility bonds hold first position in sixteen funds, railroad in ten, and industrial in three, with one fund holding no corporate bonds. Utilities also are used most uniformly, with only three funds—incidentally, the three smallest holders of corporation bonds—having less than 10%, and only two funds having more than 50% of their bonds in this field. Railroad bonds amount to less than 10% of five different funds and more than 50% of four. Industrials are the most unevenly distributed, with many very small holders and several of unduly large proportions. Those in-

Distribution of Bonds and Stocks According to the Field of Investment

Computed from November, 1931, Market Values

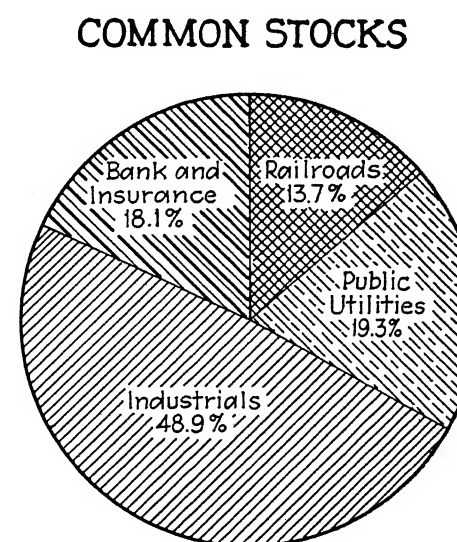


Railroads	\$ 86,969,030
Public Utilities	95,840,010
Industrials	44,517,320
U.S. Governments	17,757,150
U.S. Municipals	5,024,560
Foreign Governments	13,274,240
Real Estate	4,071,820
TOTAL	\$ 267,454,130



Railroads	\$ 5,277,760
Public Utilities	19,482,950
Industrials	17,052,280

TOTAL \$ 41,812,990



Railroads	\$ 7,340,010
Public Utilities	10,323,790
Industrials	26,209,410
Bank and Insurance	9,698,160

TOTAL \$ 53,571,370

Total Bonds and Stocks \$ 362,838,490

stitutions with over-large percentages of their bond investments committed to one field are the following:

RAILROAD		PUBLIC UTILITY		INDUSTRIAL	
24C	62.2%	11A	72.9%	18B	71.6%
22C	54.2	19B	61.1	4A	33.7
17B	54.0			9A	31.4
15B	52.2			23C	27.4
				30C	26.3
				29C	26.0

Many of the above concentrations are obviously unwarranted, while all of them could be reduced advantageously.

The preferred stocks are apportioned as follows:

Public Utility	46.6%
Industrial	40.8
Railroad	12.6

Nearly half the senior stock issues are in the public utility field. These include, however, the preferred stocks both of operating companies, most of which merit the fullest confidence of the investor, and of holding companies which, since their assets at best consist of the stocks of operating companies, are preferred stocks in name only. This distinction will show its influence when consideration is given to the quality of the bond and stockholdings.

The prominent position occupied by industrials has its logical basis in the fact that, while industrial bonds which measure up to true investment standards are becoming increasingly rare, there are available a number of preferred issues of the finest companies, most of them preceded by little or no debt. The preferred stock of the United States Steel Corporation, for instance, now has a position, with respect to its claim upon earnings, equivalent to that formerly held by the Sinking Fund Bonds of 1963, which were retired through the sale of common stock.

On the other hand, industrial preferred stocks in general inherently involve so high a degree of risk that it is

impossible to pass upon the wisdom of this large proportion in the industrial field until their quality is examined.

The showing of only one-eighth of the total of senior issues in the railroad field may be partly artificial, in that before the date of the valuation, railroad securities had already suffered a relatively higher shrinkage in market value.

Common stocks are divided among fields as follows:

Industrial	48.9%
Public Utility	19.3
Bank & Insurance	18.1
Railroad	<u>13.7</u>
TOTAL	100.0

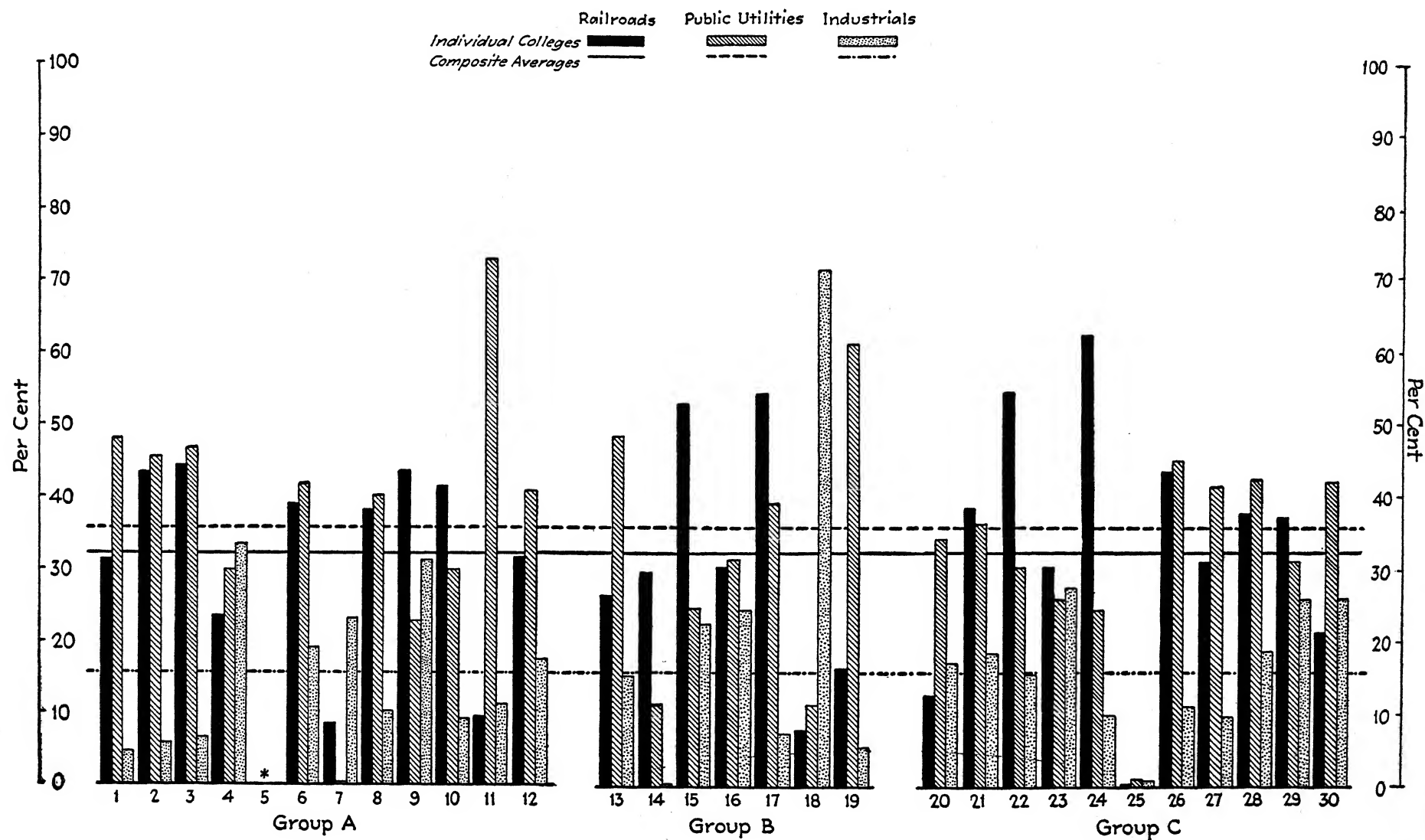
This shows that among the common stocks industrials predominate even more than do the utilities among the preferreds, which is explained by large benefactions, and justified, in principle at least, by their possibilities of growth. The remaining half of the common stock portion of the fund is divided in roughly equal portions between the public utility, bank and insurance, and railroad fields. If the cardinal purpose of common stocks to a college endowment fund is enlarged income at a time when the purchasing power of the fixed-income dollar received from bonds is low, then, broadly speaking, the distribution here found is desirable because it places over two-thirds of the common stocks in the industrial and the bank and insurance fields, where the growth probabilities are greater than in either utilities or railroads.

COMPARISON OF BONDS OF COLLEGES AND LIFE INSURANCE COMPANIES

Chart 7 graphically portrays the following comparative distribution, according to field of investment, of the bonds of the Composite Fund with those held by fifty-two life

Proportion of Bonds in Railroad and Public Utility and Industrial Issues

Holdings of each institution compared with those of Composite Fund

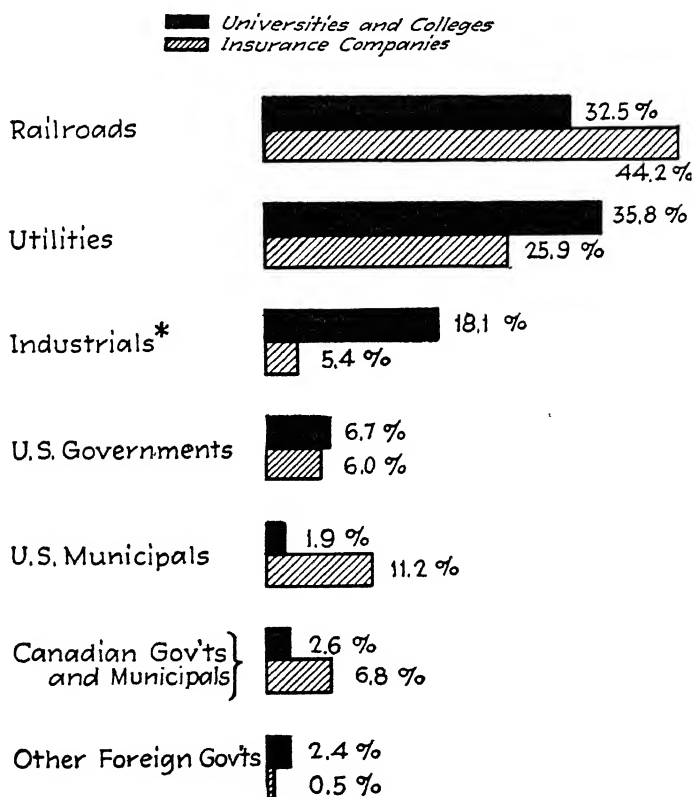


* Omitted as total bond account amounts to less than one per cent of total fund

Comparative Distribution of Bonds

Thirty Universities and Colleges and
Fifty-two Life Insurance Companies

According to Field of Investment



* Industrials here include real estate bonds in conformity with the classification of insurance companies.

insurance companies—excluding real estate bonds, which are not segregated by the insurance companies.

FIELD	THIRTY UNIVERSITIES AND COLLEGES	FIFTY-TWO LIFE INSURANCE COMPANIES
Railroad	32.5	44.2
Public Utility	35.8	25.9
Industrial	18.1	5.4
U. S. Government	6.7	6.0
U. S. Municipal	1.9	11.2
Canadian Gov't & Municipal	2.6	6.8
Other Foreign Gov't & Municipal	2.4	0.5
TOTAL	100.0	100.0

As between railroad and utility bonds, the Composite Fund apportionment is preferable to that of the life insurance companies. The college holdings of industrial bonds, on the contrary, appear too large in view of the inherent risks, although they perhaps need not be scaled quite as low as those of the insurance companies.

In the various fields of governmental obligations—Canadian government and municipal bonds are here segregated—the differences are most striking. Without the distortion of the collegiate proportion of United States governments, to which reference has already been made, the holdings of the Composite Fund both in them and in municipals would be far below those of the life companies. These holdings provide the latter with tax exemption, marketability, and, in certain states, with bonds to deposit against reserves, none of which advantages would accrue to a collegiate fund. Bonds of the Dominion of Canada and its provinces and cities are particularly useful to the insurance companies for deposits there required by law. On the other hand, the fact that the companies have only one-fifth as large a proportionate commitment in other foreign bonds indicates that these experienced lenders have much the same views on the credit rating of Continental and Latin

American peoples as have been expressed earlier in this study.

COMPARISON OF BONDS OF COLLEGES AND AN OUTSTANDING FOUNDATION

As affording a closer parallel to the university investment problem, there has been analyzed the security list of one of the country's outstanding philanthropic foundations, whose fund is not only larger than any individual college portfolio, but whose policies have consistently had the benefit of professional investment advice of the highest standing. Since the objects of the foundation are similar to those of the universities and colleges, and since its record for safeguarding principal and income has been exceptional, it is thought that comparisons drawn from its investment policies and experience may be most helpful.

The holdings of this foundation have not been compared according to class, nor its entire holdings according to field of investment, since it has practically no mortgages, real estate, or common stocks, but has approximately 91% in bonds and 9% in preferred stocks. Chart 8 visualizes the following comparative distribution of bonds among fields of investment:

	THIRTY UNIVERSITIES AND COLLEGES	AN OUTSTANDING FOUNDATION
Railroad	32.5%	52.4%
Public Utility	35.8	31.5
Industrial	16.6	7.5
U. S. Government	6.7	0.0
U. S. Municipal	1.9	0.0
Canadian	2.6	6.7
Other Foreign Government	2.4	1.9
Real Estate Bonds	1.5	0.0
TOTAL	100.0	100.0

The principal differences here exhibited are the larger investment of the foundation in railroads and Canadian gov-

ernment and municipal bonds, its entire avoidance of United States governments, municipals, and real estate bonds, and its markedly smaller reliance upon industrials. Judging solely on the basis of the form of its list, the foundation may be thought to have rather too liberal a percentage in railroads, but most of its other proportions are more desirable than those of the Composite Collegiate Fund. Inasmuch as there will be an opportunity at a subsequent place in this study to compare the Composite Fund with this foundation, on the much more important score of bond quality, further comment on the relative wisdom of these distributions can be deferred.

COMPARISONS OF PREFERRED STOCKS OF COLLEGES AND LIFE INSURANCE COMPANIES

Chart 9 sets forth the following comparative distribution, according to field of investment, of the preferred stocks held by the Composite Fund and by the life insurance companies:

FIELD	THIRTY UNIVERSITIES AND COLLEGES	FIFTY-TWO LIFE INSURANCE COMPANIES
Railroad	12.6%	16.4%
Public Utility	46.6	36.9
Industrial	40.8	46.7

As the bulk of life company purchases of preferred stocks has been made since the passage of the Wales Act in 1928, they fairly reflect the collective judgment of these large buyers as to the distribution of preferred issues under recently prevailing conditions. The reasonably close collegiate parallel shown by the chart may be, therefore, a source of some satisfaction to those responsible for the university and college productive funds.

Chart 10, page 73, portrays in like manner the comparative distribution of preferred stocks held by the

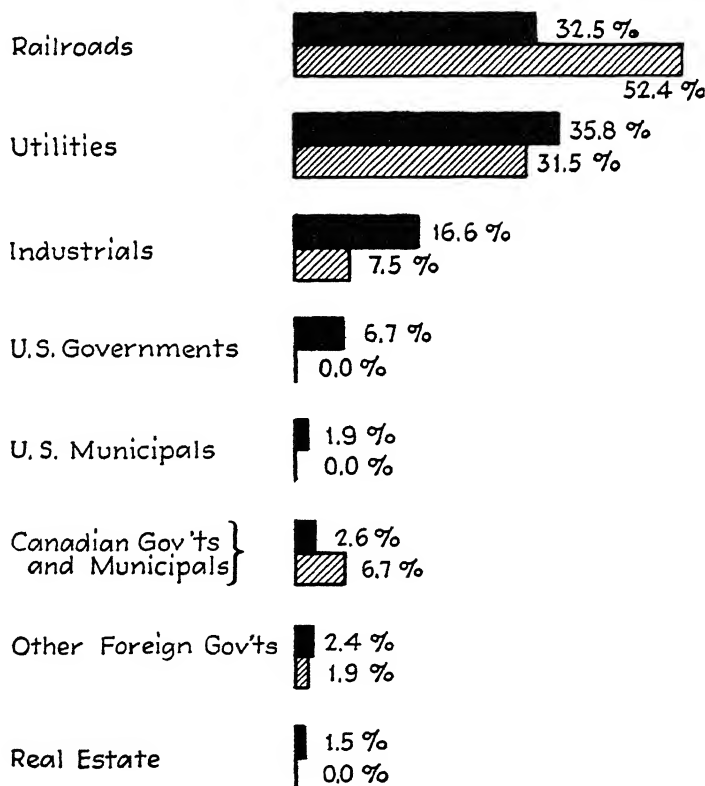
Chart 8

Comparative Distribution of Bonds

Thirty Universities and Colleges and
an Outstanding Foundation

According to Field of Investment

Universities and Colleges
Foundation



Composite Fund and the foundation previously referred to. The most marked difference here is the small proportion which the foundation has in public utility preferreds, which may be explained in part by the fact that it owns only a few preferred stocks. Whether the college distribution is actually preferable will depend upon a later analysis of the preferred stocks as to quality.

THEORETICALLY IDEAL DISTRIBUTION OF COMPOSITE FUND ACCORDING TO FIELD OF INVESTMENT

If it were possible to set up a model apportionment of collegiate funds among the fields of investment, it might be somewhat as follows:

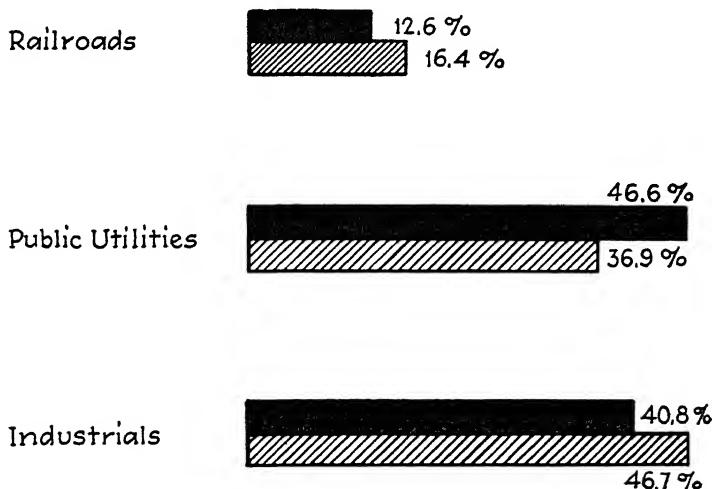
Railroad	Bonds	19%	21%
	Preferred Stocks	1	
	Common Stocks	<u>1</u>	
Public Utility	Bonds	21%	28%
	Preferred Stocks	5	
	Common Stocks	<u>2</u>	
Industrial	Bonds	5%	14%
	Preferred Stocks	4	
	Common Stocks	<u>5</u>	
Governmental	United States	3%	5%
	Municipal (U. S.)	0	
	Foreign	<u>2</u>	
Real Estate	Bonds	0%	25%
	Mortgages	20	
	Real Property	<u>5</u>	
Bank & Insurance			2%
Miscellaneous			<u>5%</u>
TOTAL			100%

Comparative Distribution of Preferred Stocks

Thirty Universities and Colleges and
Fifty-two Life Insurance Companies

According to Field of Investment

■ Universities and Colleges
▨ Insurance Companies



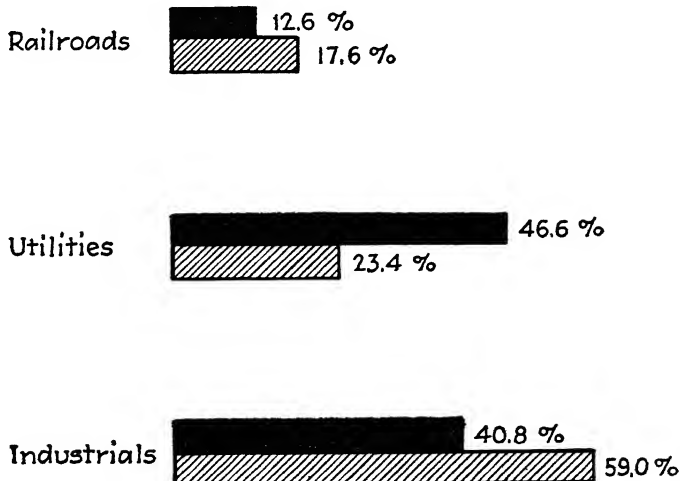
This proposed apportionment would affect in several respects the present distribution of the Composite Fund. Municipal bonds and real estate bonds, both now held in only small amounts, would be eliminated for reasons already outlined. Industrial bonds would be reduced substantially, and United States bonds would be distributed generally among all the individual funds. Foreign bonds would be understood to include only obligations of countries enjoying the highest credit. Railroad and public utility bonds and utility and industrial preferred stocks would be moderately increased. Mortgages would be expanded and real property curtailed, as discussed in the preceding chapter.

Chart 10

Comparative Distribution of Preferred Stocks

Thirty Universities and Colleges
and an Outstanding Foundation
According to Field of Investment

■ Universities and Colleges
▨ Outstanding Foundation



CHAPTER V

DISTRIBUTION OF BONDS ACCORDING TO MATURITIES

TIMELINESS of maturities—that is their distribution in such fashion as to have cash flowing in as needed or when there are especially good opportunities for making profitable reinvestments—is always a matter of much importance. While some investors, banks in particular, have compelling reasons for holding a liberal proportion of short-term securities, there is no apparent reason why universities and colleges should not select maturities freely for their money-making possibilities.

The difference in the practice of commercial banks and the universities obviously results from the recognition of the former that they must be continuously in liquid condition, whereas the latter may ignore any such necessity and select maturities mainly according to calculations of the probable future course of interest rates.

Many commercial banks hold few bonds save those of very short terms, while other experienced investors as strongly prefer bonds of distant maturities acquired at times when these perpetuate unusually high interest rates. On the other hand, universities and colleges that are expertly directed may properly pursue the opportunist policy of shifting, now and then, from long to short-term bonds or vice versa, to profit from changes in trend.

The readiness of the universities and colleges to meet radical changes in financial conditions, which is plainly the imperative argument for holding demonstrably sound

securities, is likewise the compelling motive for their making proper distribution of the maturities in their bond lists. It is particularly desirable that those who do not have the need for ready cash, that the banker has, should take full advantage of the long swings of interest rates.

They should realize, of course, that any pronounced massing of maturities in either early or distant years is essentially a wager upon the trend of these rates, since a commitment in short-term bonds is likely to be most profitable only when interest rates are generally rising, while long-term bonds are clearly preferable when interest rates are moving downward.

If the long-range downward trend of interest rates is to continue, as seems probable, universities having many long-term bonds will not only enjoy, over a period, a higher income than would be derivable from reinvestments made in the near future, but profit also from substantial appreciation in the market value of the securities. In general, the developments following the World War, corresponding closely to the precedents established in the aftermath of other great wars, encourage belief in a prolonged period of low interest rates, and go far to justify the marked preference for long-term bonds manifested in the Composite Fund.

It is perhaps proper to concede that short-term bonds are supposed to have greater liquidity, or at least are convertible at any time with smaller possibilities of depreciation in value—considerations which are of less importance to institutions of learning than to banks. As a matter of fact, the assumed liquidity of near maturities may be lacking unless they are of superior quality, whereas if bonds are of sufficiently high grade, they usually can be readily converted into cash, even when of distant maturity.

In other words, for a university or a college, the distri-

bution of its maturities is infinitely less important than the quality of its holdings.

The maturity distribution of the par value of bonds in the Composite Fund, which is detailed in Table III, is as follows:

SHORT TERM (THRU 1935)	MEDIUM TERM (1936-1950)	LONG TERM (1951—)	DOUBTFUL
12.9%	37.9%	48.7%	0.5%

Since only 12.9% of these bonds are of short term, while 48.7%, or nearly half of them, run for a long period, it might be inferred that the combined opinions of those concerned is that interest rates will continue downward for many years. The collective policy pursued is almost exactly the reverse of that followed by a large part of the commercial banks, though apparently not far removed from the procedure of those institutions which, doubting their own ability to predict the course of future economic developments, try to hedge by distributing maturities evenly over the years.

The concentration of 48.7% of the par value of bonds in the Composite Fund in maturities in distant years would seem to be amply justified in the opinion of the Trustees of the aforementioned foundation, which has 72% of its huge bondholdings in long-term maturities. In other words, the foundation apparently is even more firmly convinced that interest rates will for many years tend strongly downward.

Chart 11 depicts comparatively the following distribution of maturities by the Composite Fund and the foundation:

	MATURITIES OF BONDS			
	SHORT TERM (THRU 1935)	MEDIUM TERM (1936-1950)	LONG TERM (1951—)	DOUBTFUL
Composite Fund	12.9%	37.9%	48.7%	0.5%
Foundation	1.0	27.0	72.0	

TABLE III

DISTRIBUTION OF BONDS ACCORDING TO MATURITIES

UNIVERSITIES AND COLLEGES	SHORT TERM (THRU 1935)	MEDIUM TERM (1936-1950)	LONG TERM (1951-ON)	DOUBTFUL	TOTALS
1 A	4.2%	44.4%	51.4%	—	100%
2 A	2.5	38.1	59.4	—	100
3 A	6.9	26.6	66.5	—	100
4 A	7.9	43.3	48.8	—	100
5 A	9.1	16.6	67.1	7.2%	100
6 A	3.8	39.5	56.7	—	100
7 A	38.5	43.5	18.0	—	100
8 A	5.0	43.6	51.4	—	100
9 A	5.2	61.4	33.4	—	100
10 A	1.1	36.2	62.7	—	100
11 A	2.5	42.7	54.7	—	100
12 A	15.8	32.9	51.2	—	100
13 B	7.2	46.8	45.8	.2	100
14 B	14.1	34.0	51.8	—	100
15 B	7.3	39.2	53.4	.1	100
16 B	1.8	33.0	65.3	—	100
17 B	8.8	32.3	58.2	.6	100
18 B	9.7	54.1	30.3	5.8	100
19 B	1.3	21.3	77.2	.3	100
20 C	17.0	46.2	36.4	.4	100
21 C	5.8	38.3	55.7	—	100
22 C	5.5	37.7	55.2	1.6	100
23 C	9.6	47.9	33.8	8.7	100
24 C	27.8	35.9	35.8	5.4	100
25 C	64.4	33.1	2.4	.1	100
26 C	1.2	25.7	73.0	—	100
27 C	12.2	39.2	48.4	.2	100
28 C	.7	30.9	68.3	—	100
29 C	10.7	46.5	42.3	.4	100
30 C	15.5	43.1	41.2	.2	100
Group A (1 A-12 A)	7.1%	39.0%	53.9%	—%	100
Group B (13 B-19 B)	5.7	32.8	60.8	.7	100
Group C (20 C-30 C)	15.6	38.9	45.0	.5	100
Composite (A, B & C)	12.9	37.9	48.7	.5	100

The distribution of maturities among the thirty different universities and colleges indicates that as among individual institutions there is little uniformity of practice. Institutions 7A and 24C, and notably 25C, are unique in having approximately 38%, 27%, and 64% respectively maturing within the next four years. The last mentioned list, however, is distorted by the circumstance that it has a huge amount of United States bonds, which are redeemable within the next few years, and hence have been classified as short term. The advantages of short-term maturities would seem to have been overvalued by 25C, which has thus maintained excessive liquidity at the high cost of an unreasonable sacrifice of income; whereas quite as convincing assurance of being able to obtain cash in any rare emergency which it might be called upon to meet could have been provided, at much less sacrifice of income, by holding the same amount of first-grade bonds of considerably longer term.

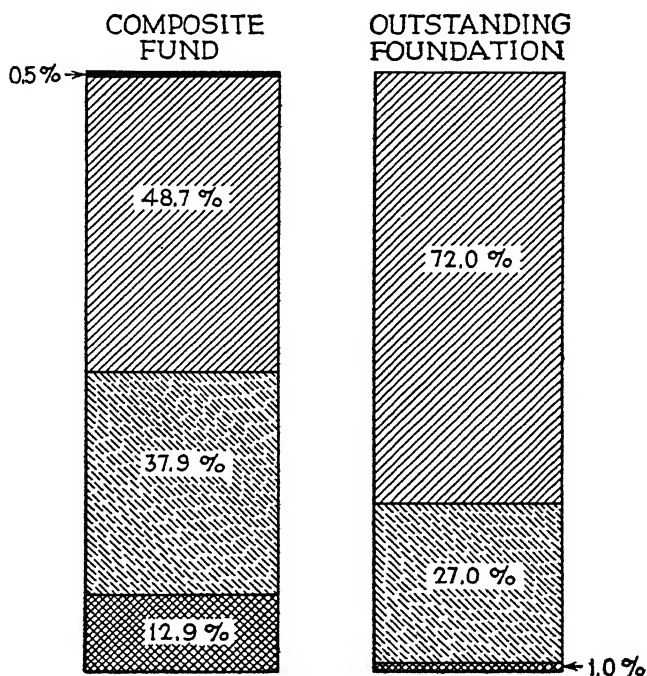
The latter procedure, of course, would involve the risk that in some time of general distress the discount upon long-term bonds converted into cash would be materially greater than on short-term issues. But since the occasions when institutions of learning have need to convert bonds into cash are so rare, the losses from the infrequent forced sale of long-term bonds should be amply compensated for by their greater productivity during many years of freedom from the necessity of meeting any emergency. In fact, the proportion of short-term issues should be restrained by exactly the same reasoning which limits the holdings of United States government bonds.





Those having an exceptionally small percentage of issues of early maturities are represented by a considerable number of colleges in Group A, and by a lesser proportion of those in Groups B and C.

Comparative Distribution of Bond Maturities

Of Composite Fund and Outstanding Foundation

Expressed in Percentages of Total Par Values



-  Short term, thru 1935
-  Medium term, 1936-1950
-  Long term, 1951 on
-  Doubtful

Among those having an extraordinarily large percentage of issues of long maturities, the most conspicuous are the following:

COLLEGES	PROPORTION LONG-TERM MATURITIES
3 A	66.5%
10 A	62.7
16 B	65.3
19 B	77.2
26 C	73.0
28 C	68.3

Such a concentration of maturities, in order to be intelligent, must turn upon a rational consideration of all the facts likely to determine the trend of interest rates.

It would beyond doubt be extremely difficult to develop an argument which would irrefutably demonstrate the wisdom of having 61.4% in medium-term maturities, as has 9A; and 54.1%, as has 18B, rather than in the near or remote future. Such a concentration upon mid-term bonds is unlikely to supply the benefits reasonably to be expected under varying conditions, from either very early or extremely distant maturities.

As to the different groups into which the Composite Fund is divided, there is considerable divergence as to the distribution of their maturities. Table III makes it appear that only 7.1% of the bonds in Group A, and but 5.7% of those in Group B, mature within the next four years, as against 15.6% in Group C, and a composite average of 12.9%. The proportion of medium-term bonds held by these groups varies less—with 39% in A, 32.8% in B, and 38.9% in Group C, as against 37.9% for the Composite Fund. In the most distant maturities there appears a variance of 15.8% between the 60.8% holdings of Group B and the 45% of Group C. As the total volume of Group C's holdings is larger than that of any other group, it is only

natural that its more nearly equal distribution of maturities should very closely parallel the showing of the Composite Fund.

Just how many changes would be required to bring about a fairly equal distribution of maturities cannot be stated, for the sufficient reason that the figures in Table III are inexact to the extent that no one can be sure just when certain of the bonds will be redeemed—in fact, the range of possible variations in the time of their payment is very wide. Uncertainty attaches to any attempt to segregate all those bonds which may be redeemed before maturity.

In view of the multitude of cases wherein debtor corporations in recent years have found it advantageous to exercise their option to refund callable bonds at a lower rate, a new tabulation of practicable maturities would differ materially from the showing in Table III of nominal maturities. Such a tabulation of practical redemptions should include: bonds redeemable at any time and now quoted at approximately their redemption prices; issues not callable until some future date, but which have already risen to or above their call prices; and representatives of either of these classes which the obligors would find it advantageous to redeem, in case their prices should rise only a few points during a period of falling interest rates.

In this connection, it may be worth while to emphasize the fact that the practicability of redeeming a bond is judged from the point of view of the debtor corporation, whose improvement in credit is measured generally by the height to which the price of its bonds rise, whereas the same rise in price of a redeemable bond measures the increase in its undesirability for the investor.

The consequences of holding too long, in a period of falling interest rates, any sound corporation bonds that

are callable, naturally raise a question as to the possibility of avoiding such losses.

To reach a wise conclusion regarding the expedient course of action, it is necessary to speculate—to look ahead in a farsighted way and calculate the probable net resultant of the complex interactions of many economic forces. Speculation upon the consequences of future economic developments, even by the most conservative Trustees, is inescapable, since the passive retention of a list containing a preponderance of either extremely long or extremely short bonds involves exactly the same responsibility as the choice between such extremes when making purchases of securities.

If Trustees are reluctant to attempt to forecast the future trend of interest rates, the only rational alternative would be to adopt a hedging policy of aiming at a fairly even distribution of all maturities, plus possible redemptions, among future five-year periods. Such a procedure would also aid the Trustees of any college endowment fund to counteract the fluctuating purchasing power of the dollar by permitting frequent reinvestments in accord with changes in interest rates.

CHAPTER VI

INTELLIGENT DISTRIBUTION OF UNAVOIDABLE RISKS

THE employment of productive funds unavoidably carries with it the assumption of a greater or lesser degree of risk. In investment and speculation, as in insurance, intelligent underwriting of risks is based upon their distribution over an area sufficiently wide to minimize the effect of any single loss. To achieve this end with college endowment funds, Trustees commonly select their investments with a view to having not only geographical distribution and representation in different classes and fields of investment, but also to spreading their risks over an adequate number of individual companies and separate issues of bonds and stocks.

In the case of universities and colleges this diversification between bonds and stocks is important, since the income from their invested funds, as heretofore discussed, is used to buy services and commodities, unlike the income derived from the investments of savings banks and insurance companies, which is used to meet obligations payable in dollars. Geographical diversification also is sought, not only to avoid the economic losses and physical disasters which affect some territories more severely than others but, by putting moneys into the railroads, utilities, and industries that serve a nation-wide area, with consequent benefit to that broad territory, to gain the favorable regard of present and prospective donors wherever located.

Moreover, extremely cautious but farsighted Trustees avoid any excessive investment in a one-industry city on the ground that any new invention or unforeseen calamity which might affect that industry adversely would have a like effect upon real estate values and any utility serving the community. It is better that funds be spread not only over different communities and industries but over different companies within an industry.

As the rules governing the application of diversification are so general, any detailed suggestions as to how these specific collegiate funds may scatter their risks would hardly seem justifiable.

Just as intelligent diversification is an important prerequisite to successful investing, so excessive subdivision into numerous small items is an effectual dissipator of time and efficiency. Obviously the interest and energy of those supervising a fund would be dissipated by a needlessly large number of items, just as their impulse to act promptly and decisively would be weakened in respect to items of insignificant size. Efficient supervision requires concentrated attention, which is unlikely to be given to items not large enough to be considered worth while.

While diversification softens the shock of any single loss, over-diversification, though making losses smaller, increases their frequency. The excessively subdivided list almost invariably suffers from unnoticed, or at any rate uncorrected, deterioration of some items, as well as from failure to note and utilize opportunities for making desirable substitutions.

The burden of supervision for some college endowments is apt to fall largely upon some loyal supporter who, irrespective of whether he is skilled in handling investments, finds it difficult if not impossible to divert to this supervisory work much time required by his other duties. His

burden is made needlessly heavier by over-division of holdings. Furthermore, outside investment advisers, concerned with improving the college's list of securities through the replacement of one lot by another decidedly more attractive, are unlikely to devote much attention to extremely small units.

The primary reason, however, for reducing the number of items in any excessively subdivided list, with corresponding increase in the size of each item, is found in the fact that better results are invariably attained when the units are big enough to be worth watching over and few enough so that all of them can be kept continuously under observation.

Table IV sets forth in detail the total dollar investment of each institution in bonds, preferred stocks, and common stocks; the number of individual items appearing in each class; the average dollar investment and its percentage to the total; together with the total security holdings of each university and college. Corresponding data for each group and the Composite Fund are shown on the basis of averages only, in order to portray the position of the typical fund in each group. The average security portfolio of the Composite Fund amounts to just over twelve million dollars and is composed of 224 items averaging \$54,000 each, so that each item amounts to $\frac{45}{100}$ of one per cent of the whole. Of these items 170 are bonds averaging $\frac{43}{100}\%$, 26 are preferred stocks averaging $\frac{44}{100}\%$, and 27 are common stocks averaging $\frac{55}{100}\%$ of the total bond and stock holdings.

Among the groups it is natural to find a greater degree of subdivision in the larger funds, because otherwise their individual holdings would be too great a proportion of an issue, and of unmarketable size. Each individual item in Group A amounts to $\frac{6}{100}\%$, each in Group B to $\frac{48}{100}\%$, and each in Group C to $\frac{3}{100}\%$ of the combined bond and

stock holdings of their respective groups. On the other hand, in dollars each item in Group A averages \$24,442, in Group B, \$40,727; and in Group C, \$75,614. In Group A, bonds and preferred stocks are held in larger average amounts than common stocks; in Group B, the preferred stocks are larger in amount than the other two classes, while in Group C the common stocks show the greatest concentration.

Aside from 5A, which holds practically no securities, the greatest concentration is shown by 7A, with 1.52% per item; 9A, with 1.38%; and 25C, with 1.35%. None of these may properly be considered lacking in diversification, because the first two are smaller funds and the latter holds over 90% United States government bonds, among which the risk does not need to be spread.

In Group A conspicuously undesirable subdivision is found in 11A, with 260 items for a list of only a little over three million dollars, and in 1A with 193 items for a portfolio slightly under this amount. Fund 8A, with 236 items composing a five-million dollar account, makes an interesting comparison with 19B, with only seven more items but securities aggregating fourteen million, and with 26C, with but eight more items in a list of twenty-five and a half million. Another excessively spread out situation exists in 24C with no less than 556 lots of bonds and stocks, averaging only \$33,000 in a nineteen-million dollar fund. There would seem to be no logical reason why a fund of this size should have any item under \$50,000 nor an average of less than \$100,000. Whatever the intrinsic merits of the multitude of tiny items, intermingled with substantial holdings, they add appreciably to all the various clerical costs of handling and keeping records of securities owned, and are very apt to cloud the vision of those who shape and administer the investment policy.

TABLE IV

DISTRIBUTION OF FUNDS TO SHOW NUMBER OF ITEMS AND AVERAGE INVESTMENT IN BONDS AND STOCKS

UNIVERSITIES AND COLLEGES	BONDS				PREFERRED STOCKS				COMMON STOCKS				TOTAL BONDS AND STOCKS				UNIVERSITIES AND COLLEGES
	AMOUNT	NO. OF ITEMS	AVERAGE IN DOLLARS	*PER CENT	AMOUNT	NO. OF ITEMS	AVERAGE IN DOLLARS	*PER CENT	AMOUNT	NO. OF ITEMS	AVERAGE IN DOLLARS	*PER CENT	TOTAL INVESTMENT	NO. OF ITEMS	AVERAGE IN DOLLARS	*PER CENT	
1 A	\$ 2,397,650	162	\$ 14,800	.5%	\$ 162,080	12	\$ 13,506	.5%	\$ 330,640	19	\$ 17,402	.6%	\$ 2,890,370	193	\$ 14,976	.52%	1 A
2 A	3,496,620	115	30,406	.8	126,150	5	25,230	.5	269,200	24	11,216	.3	3,891,970	144	27,027	.69	2 A
3 A	3,168,540	117	27,081	.7	486,330	26	18,705	.5	160,030	11	14,548	.4	3,814,900	154	24,772	.65	3 A
4 A	2,422,700	105	23,073	.6	833,900	41	20,339	.6	358,440	29	12,360	.3	3,615,040	175	20,657	.57	4 A
5 A	37,680	19	1,983	5.3	—	—	—	—	—	—	—	—	37,680	19	1,983	5.26	5 A
6 A	2,531,850	88	28,771	.6	1,175,630	36	32,656	.7	914,180	25	36,567	.8	4,621,660	149	31,017	.67	6 A
7 A	585,330	41	14,278	1.3	395,360	17	23,256	2.1	118,750	8	14,843	1.3	1,099,440	66	16,658	1.52	7 A
8 A	4,189,320	182	23,018	.4	356,180	24	14,840	.3	368,810	30	12,293	.3	4,914,310	236	20,823	.42	8 A
9 A	1,462,970	35	41,799	1.5	849,400	14	60,671	2.2	427,210	23	18,574	.7	2,739,580	72	38,049	1.38	9 A
10 A	4,975,280	148	33,616	.6	938,340	34	27,598	.5	136,600	2	68,300	1.1	6,050,220	184	32,881	.54	10 A
11 A	3,126,790	247	12,659	.4	5,070	3	1,690	—	30,650	10	3,065	.1	3,162,510	260	12,163	.38	11 A
12 A	6,539,360	140	46,709	.6	255,300	10	25,530	.3	658,270	18	36,570	.5	7,452,930	168	44,362	.60	12 A
13 B	5,014,360	164	30,575	.5	326,190	18	18,121	.3	711,990	26	37,383	.6	6,052,540	208	29,098	.48	13 B
14 B	2,749,320	155	17,733	.6	13,930	5	2,786	.1	18,710	2	9,355	.3	2,781,960	162	17,172	.62	14 B
15 B	4,189,230	129	32,474	.5	1,635,890	65	25,167	.4	358,610	29	12,365	.2	6,183,730	223	27,729	.45	15 B
16 B	4,817,060	118	40,822	.5	492,170	18	27,342	.4	2,234,890	27	82,773	1.0	7,544,120	163	46,282	.61	16 B
17 B	8,321,930	254	32,763	.2	4,462,300	51	87,496	.7	543,380	44	12,349	.1	13,327,610	349	38,187	.28	17 B
18 B	3,141,530	58	54,164	.6	3,536,680	23	153,768	1.6	3,080,520	39	78,987	.8	9,758,730	120	81,323	.83	18 B
19 B	13,538,770	213	63,562	.4	561,280	14	40,091	.3	120,650	16	7,540	—	14,220,700	243	58,521	.41	19 B
20 C	3,232,090	191	16,921	.3	51,540	7	7,362	.1	2,670,620	25	106,825	1.7	5,954,250	223	26,701	.45	20 C
21 C	17,285,700	198	87,301	.5	27,640	4	6,910	—	44,390	4	11,097	—	17,357,730	206	84,260	.49	21 C
22 C	11,783,660	184	64,041	.4	2,573,330	38	67,719	.4	1,010,020	34	44,412	.3	15,367,010	256	60,027	.39	22 C
23 C	6,976,630	195	35,777	.3	2,662,930	71	37,506	.3	3,141,120	61	51,493	.4	12,780,680	327	39,084	.31	23 C
24 C	17,642,080	512	34,457	.2	364,360	19	19,176	.1	799,800	25	31,992	.1	18,806,240	556	32,824	.17	24 C
25 C	17,994,140	73	247,803	1.4	—	—	—	—	10,000	1	10,000	—	18,004,140	74	243,299	1.35	25 C
26 C	16,631,420	148	112,374	.4	1,454,510	30	48,483	.2	7,359,770	66	111,511	.4	25,445,700	244	104,285	.41	26 C
27 C	19,240,290	260	74,001	.3	1,251,580	36	34,766	.1	5,666,010	46	123,174	.5	26,157,880	342	76,485	.29	27 C
28 C	9,261,560	115	80,535	.7	1,502,980	22	68,317	.6	431,690	8	53,961	.5	11,196,230	145	77,215	.69	28 C
29 C	22,532,470	408	55,226	.1	10,658,700	100	106,587	.3	9,090,090	88	103,296	.2	42,281,260	596	70,941	.17	29 C
30 C	48,167,800	324	148,653	.2	4,653,240	48	96,942	.1	12,506,330	78	160,337	.2	65,327,370	450	145,171	.22	30 C
Group A Average	2,911,174	116	25,096	.68	465,311	18	25,851	.70	314,398	17	18,493	.50	3,690,883	151	24,442	.66	Group A Average
Group B Average	5,967,457	156	37,769	.44	1,575,491	28	56,268	.66	1,009,821	26	38,839	.45	8,552,769	210	40,727	.48	Group B Average
Group C Average	17,340,712	237	75,749	.32	2,290,982	34	67,381	.29	3,884,530	40	99,603	.42	23,516,224	311	75,614	.32	Group C Average
Composite Average	8,915,137	170	52,442	.43	1,393,766	27	53,606	.44	1,785,712	27	66,137	.55	12,094,615	224	53,994	.45	Composite Average

* Investment in Per Cent of Total of Bonds and Stocks.

Since the major number of items are bond issues the distribution of bonds exhibited by different funds shows about the same peculiarities as the combined distribution of securities just discussed.

Among the preferred stocks, 18B reveals a very large average investment with only 23 items, averaging nearly \$154,000 each. Many funds with comparatively minor commitments in preferreds have average items much smaller than their average bond investment. Others, such as 17B and 29C show a much larger average investment in preferred stocks than in bonds.

Common stocks are probably distributed more by accident than by design. The most extensive holders of equities seem to show the largest average blocks, because of concentrated gifts of certain stocks. Notable examples of this are 10A, 16B, and 20C. In fact, among the thirty schools comprising the Composite Fund five have average blocks of common stocks exceeding \$100,000, which is the case with only three bond accounts and only two lists of preferred stocks.

Such figures on average holdings may admittedly be entirely misleading. An apparently favorable degree of diversification may be, and often is, the resulting average of three or four inordinately large investments and a host of smaller ones. The only practical way to arrive at a wise balance between dangerous over-concentration and senseless subdivision, both of which may occur in the same portfolio, is to determine for a fund of a given size the desirable minimum, maximum, and average holding. This having been done, then all those items which fall below the lower limit should be carefully scrutinized and, if worthy, increased, or if unworthy eventually eliminated so as not to further distract attention from those of worth while size. Likewise, those above the desired maximum should be re-

duced unless entirely convincing reasons can be adduced for their retention in toto.

For accounts of the average size of those in the three groups of the Composite Fund, a desirable approximate diversification would be:

	AVERAGE SIZE OF FUND	MINIMUM INVESTMENT	MAXIMUM INVESTMENT	AVERAGE INVESTMENT	NO. OF ITEMS
Group A	\$3,700,000	\$25,000	\$100,000	\$50,000	74
Group B	8,500,000	50,000	150,000	85,000	100
Group C	23,500,000	75,000	250,000	125,000	188

CHAPTER VII

DISTRIBUTION OF INVESTMENTS ACCORDING TO QUALITY

IN order to discuss the investments of the Composite Fund and its component institutions from the all-important point of view of quality, there has been applied to each bond and stock item the grading system commonly used by Wood, Struthers & Company in its analytical work.

The justification for some system of grading bonds and stocks lies in the fact that, without such a division, it is utterly impossible to gain perspective upon the character of any investment list in its entirety. Just as the character of a group of 3,173 men could not be discerned without some kind of classification, according to height or weight or color or race or otherwise, so the character of the 3,173 different securities in the Composite Fund cannot be understood without some method of reducing them to a common denominator. And since, for the purposes of the investor, the most important characteristic of any security is the degree of safety embodied in it, it has seemed imperatively necessary to measure the safety of each of the securities in each list and combine these gradings in tabular form, so that the quality of any institution's holdings may be comprehended at a glance and compared with that of any other university or college.

The limitations of any such system are obvious. Many important characteristics of each security and of the aggregate are in such a table not included. There is danger that

the grade attached to any security, whether high or low, may be assumed to indicate whether or not it is desirable for purchase or retention; whereas such a conclusion is wholly unwarranted, since the quality of a security is only one of the characteristics that must be considered in connection with its price. It is essential to realize that, because of the incessant economic changes which affect unequally the prosperity of different industries and of the individual corporations therein, alterations in the positive and relative quality of individual issues may at times be numerous and radical, so that the ratings in every list should be revised and tabulated at least once a year. Thus, there develops genuine need for periodical reviews of holdings, to determine whether investments have fallen below the standard of quality desired.

Even the grade of the moment may fail of accuracy, since nothing short of omniscience would be required for grading infallibly each of the 3,173 different securities which appear in the lists of these thirty universities and colleges. Occasional minor errors, likely to consist of the assignment of a security to the grade next above or below that in which it belongs, may be expected and ignored, for it is not at all probable that they would materially affect the final percentages that should measure the quality of each investment list, in its entirety. This method of measuring merit, even if it falls short of perfection, at least permits useful conclusions regarding the betterment of a list and of the embodied investment policy.

Measurement of the quality of individual bonds in the Composite Fund has been undertaken from the point of view of safety, the prime characteristic of any investment, as such. Investment is assumed to mean lending upon adequate security, but, recognizing the fact that perfect security with entire freedom from risk is practically unob-

tainable, the approach to adequacy in security, as determining the extent of risk, has been expressed by numerals and corresponding catch words indicating the different grades. The two upper grades are intended to include only loans so thoroughly protected by foreclosure value and earning power that they are safe enough for practically any purpose; the two lower grades are made up of bonds so intrinsically defective or subject to such hazards as render them unfit for investment; while the middle grade, comprising a great variety of types and a wide range in merit, represents in general the greatest risk that properly may be incurred for the sake of relatively high yield by the prudent investor. Pure investment shades slowly into intelligent speculation between the best of the prime bonds in Grade I and the least desirable members of Grade III; just as speculation degenerates gradually into mere gambling between the bonds on the upper borders of Grade III and the lower fringe of Grade IV. Speculation is here understood to mean the acceptance of risks that are limited, understandable, and practically measurable; whereas gambling implies the incurring of hazards that are literally unmeasurable and often not understandable. Neither these definitions nor the grades carry any moral implications, but are intended merely to aid in gaining impartial appreciation of the character of the investment lists.

The grading of stocks follows the same lines as that of bonds, with the obviously necessary distinction that the merit of the stocks must be gauged from the point of view of intelligent speculation rather than of pure investment. Nevertheless, it must be conceded that a few of the best stocks have much greater safety than many bonds, while many bonds involve quite as much risk as stocks. Such exceptional cases, however, may be considered on their own merits, without impairing the usefulness of the method of

classification in grading, as applied to the much more numerous typical cases of both bonds and stocks.

The distribution according to these gradings of the bonds, preferred stocks, and common stocks in the Composite Fund is depicted by Chart 12, following page 94.

QUALITY OF BONDS

Table V presents the grading of the bonds of each of the thirty institutions and summarizes them by groups. The aggregate distribution of the bonds in the Composite Fund is as follows:

GRADE		AMOUNT	PROPORTION
I	Excellent	\$72,851,760	27.3%
II	Good	104,016,460	38.9
III	Fair	69,568,270	26.0
IV	Poor	13,058,840	4.9
V	Bad	711,230	.2
	Ungraded	7,247,570	2.7
TOTAL		<u>\$267,454,130</u>	<u>100.0</u>

In anything approaching normal times such a division, namely 92.1% in the three upper grades, would be regarded as satisfactorily conservative. The economic depression through which the world has been passing, however, has had as one of its most serious aspects the enormous aggregate of debts contracted by individuals, corporations, and governments, the weight of which grows increasingly menacing as values and incomes decline. Many bonds, therefore, fairly entitled to a III grading on the basis of normal intrinsic value, have been brought into question and even into jeopardy by temporary impairment of earning power or inability of debtors to refinance maturing obligations.

One characteristic of Grade III bonds is their tendency either to rise to a higher grading or to degenerate into a lower one, with recent trends unfortunately in the latter direction. In the early stages of an era of prosperity me-

TABLE V

DISTRIBUTION OF BONDS ACCORDING TO GRADE

UNIVERSITIES AND COLLEGES	GRADE I		GRADE II		GRADE III		GRADE IV		GRADE V		UNGRADED		GRADES I, II & III		IV, V & UNGRADED		TOTAL		UNIVERSITIES AND COLLEGES
	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	
1 A	\$ 704,100	29.3%	\$ 1,075,070	44.8%	\$ 506,760	21.1%	\$ 88,720	3.8%	\$ 3,800	.2%	\$ 19,200	.8%	\$ 2,285,930	95.3%	\$ 111,720	4.7%	\$ 2,397,650	100%	1 A
2 A	808,150	23.1	1,663,370	47.6	787,230	22.5	49,970	1.4	—	—	187,900	5.4	3,258,750	93.2	237,870	6.8	3,496,620	100	2 A
3 A	254,830	8.0	1,365,440	43.0	1,329,370	42.0	179,650	5.7	2,250	.1	37,000	1.2	2,949,640	93.1	218,900	6.9	3,168,540	100	3 A
4 A	49,100	2.0	904,500	37.3	1,129,790	46.6	137,860	5.8	—	—	201,450	8.3	2,083,390	86.0	339,310	14.0	2,422,700	100	4 A
5 A	—	—	—	—	12,600	33.4	10,840	28.8	8,400	22.3	5,840	15.5	12,600	33.4	25,080	66.6	37,680	100	5 A
6 A	779,860	20.8	1,114,090	44.0	545,900	21.6	84,300	3.3	7,700	.3	—	—	2,439,850	96.4	92,000	3.6	2,531,850	100	6 A
7 A	50,460	8.6	187,400	32.0	193,920	33.1	55,150	9.4	2,000	.4	96,400	16.5	431,780	73.8	153,550	26.2	585,330	100	7 A
8 A	1,159,360	27.7	2,122,550	50.6	665,580	15.9	241,480	5.8	350	—	—	—	3,947,490	94.2	241,830	5.8	4,189,320	100	8 A
9 A	18,540	1.3	571,540	39.1	832,840	56.9	450	—	—	—	39,600	2.7	1,422,920	97.3	40,050	2.7	1,462,970	100	9 A
10 A	1,034,000	20.8	2,408,030	48.4	1,310,700	26.3	202,350	4.1	20,200	.4	—	—	4,752,730	95.5	222,550	4.5	4,975,280	100	10 A
11 A	63,280	2.0	1,098,880	35.1	1,360,310	43.5	465,620	14.9	1,400	.1	137,300	4.4	2,522,470	80.7	604,320	19.3	3,126,790	100	11 A
12 A	748,800	11.5	2,923,040	44.7	2,240,950	34.3	487,520	7.4	25,850	.4	113,200	1.7	5,912,790	90.4	626,570	9.6	6,539,360	100	12 A
13 B	2,245,780	44.8	1,787,800	35.6	642,090	12.8	294,100	5.9	7,910	.2	36,680	.7	4,675,670	93.2	338,690	6.8	5,014,360	100	13 B
14 B	485,570	17.7	1,199,380	43.6	824,690	30.0	239,080	8.7	150	—	450	—	2,509,640	91.3	239,680	8.7	2,749,320	100	14 B
15 B	1,160,110	27.7	1,791,200	42.7	1,063,380	25.4	161,400	3.9	4,140	.1	9,000	.2	4,014,690	95.8	174,540	4.2	4,189,230	100	15 B
16 B	1,135,500	23.6	2,175,050	45.1	1,140,510	23.7	345,470	7.2	—	—	20,530	.4	4,451,060	92.4	366,000	7.6	4,817,060	100	16 B
17 B	2,062,070	24.8	3,272,080	39.3	2,343,480	28.2	467,810	5.6	127,840	1.5	48,650	.6	7,677,630	92.3	644,300	7.7	8,321,930	100	17 B
18 B	78,250	2.5	798,850	25.4	1,940,550	61.8	152,830	4.9	32,220	1.0	138,830	4.4	2,817,650	89.7	323,880	10.3	3,141,530	100	18 B
19 B	1,694,900	12.5	5,504,020	40.7	4,834,310	35.7	870,350	6.4	154,190	1.1	481,000	3.6	12,033,230	88.9	1,505,540	11.1	13,538,770	100	19 B
20 C	719,150	22.3	1,326,980	41.1	850,270	26.3	228,090	7.1	5,400	.1	102,200	3.2	2,896,400	89.6	335,690	10.4	3,232,090	100	20 C
21 C	5,492,500	31.8	2,938,420	17.0	6,089,580	35.2	1,269,130	7.3	67,060	.4	1,429,010	8.3	14,520,500	84.0	2,765,200	16.0	17,285,700	100	21 C
22 C	4,557,570	38.7	4,996,560	42.4	2,101,230	17.8	124,850	1.1	100	—	3,350	—	11,655,360	98.9	128,300	1.1	11,783,660	100	22 C
23 C	1,110,620	15.9	2,456,210	35.2	2,445,460	35.1	534,000	7.6	13,440	.2	416,900	6.0	6,012,290	86.2	964,340	13.8	6,976,630	100	23 C
24 C	3,958,590	22.4	9,363,000	53.1	3,246,540	18.4	709,550	4.1	56,300	.3	308,100	1.7	16,568,130	93.9	1,073,950	6.1	17,642,080	100	24 C
25 C	17,274,620	96.0	194,350	1.1	273,980	1.5	29,530	.2	30	—	221,630	1.2	17,742,950	98.6	251,190	1.4	17,994,140	100	25 C
26 C	2,360,520	14.2	9,355,850	56.3	4,061,050	24.4	801,000	4.8	53,000	.3	—	—	15,777,420	94.9	854,000	5.1	16,631,420	100	26 C
27 C	7,400,430	38.5	7,775,410	40.4	3,112,950	16.2	272,300	1.4	—	—	679,200	3.5	18,288,790	95.1	951,500	4.9	19,240,290	100	27 C
28 C	1,382,860	14.9	5,822,960	62.9	1,852,950	20.0	150,350	1.6	1,500	—	50,940	.6	9,058,770	97.8	202,790	2.2	9,261,560	100	28 C
29 C	4,940,290	21.9	8,766,480	38.9	7,225,500	32.1	916,990	4.1	20,800	.1	662,410	2.9	20,932,270	92.9	1,600,200	7.1	22,532,470	100	29 C
30 C	9,121,950	18.9	19,057,950	39.6	14,603,800	30.3	3,488,100	7.3	95,200	.2	1,800,800	3.7	42,783,700	88.8	5,384,100	11.2	48,167,800	100	30 C
Group A (1 A-12 A)	5,670,480	16.3	15,433,910	44.4	10,915,950	30.9	2,003,910	5.8	71,950	.2	837,890	2.4	32,020,340	91.6	2,913,750	1.4	34,934,090	100	Group A (1 A-12 A)
Group B (13 B-19 B)	8,862,180	21.2	16,523,380	39.6	12,789,010	30.6	2,531,040	9.1	326,450	.8	735,140	1.7	38,179,570	91.4	3,592,630	8.6	41,772,200	100	Group B (13 B-19 B)
Group C (20 C-30 C)	58,319,100	30.6	72,054,170	37.8	45,863,310	24.0	8,523,890	4.5	312,830	.1	5,674,540	3.0	176,236,580	92.4	14,511,260	7.6	190,747,840	100	Group C (20 C-30 C)
Composite (A, B & C)	72,851,760	27.2	104,016,460	38.9	69,568,270	26.0	13,058,840	4.9	711,230	.2	7,247,570	2.7	246,436,490	92.1	21,017,640	7.9	267,454,130	100	Composite (A, B & C)

characterizing the policies of the colleges having the larger productive funds as compared with those of medium and smaller size. This is quite marked in the quality of bondholdings, as evidenced by the following exhibit of combined percentages in Grades I and II:

Group A (Average fund \$5,250,000)	60.7%
Group B (Average fund 13,000,000)	60.8%
Group C (Average fund 35,000,000)	68.4%

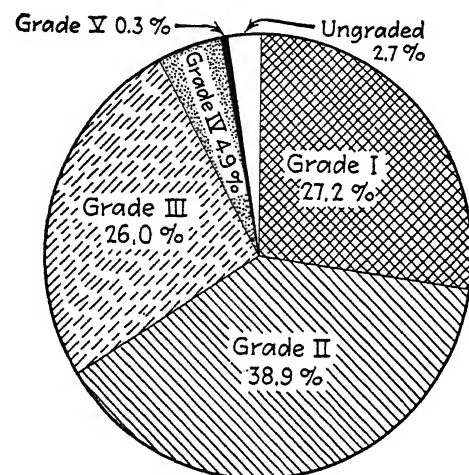
Likewise, the percentage in Grades IV and V, namely, 6.0% in Group A, 6.9% in Group B, and 4.6% in Group C, favors the larger funds; while, as shown by Table V, Groups A and B each have a little over 30% in Grade III as opposed to Group C with 24%. In other words, the institutions with the larger funds have been most successful in avoiding both mediocre and definitely poor bonds.

Since each of these aggregate group figures is based on the combined dollar amount of several funds, varying widely in size, there is the possibility of their being unduly influenced by the one or two largest members of the group. It is noteworthy that the \$48,000,000 bonds held by 30C is not only the greatest total of bonds held by any of the thirty universities and colleges, but is more than twice the amount held by any other institution and is one-fourth of the total bondholdings of Group C. This single fund, therefore, necessarily exercises more influence on the Group C percentage than any two other funds and, in fact, more than the five members of its own group with the smallest bondholdings. Reference to Table V, however, clearly shows that this disproportionate influence does not account for the high quality of the group, since 30C has only 58.5% of its bonds in the two upper grades against 68.4% for the group. It might be suspected further that the favorable group exhibit is largely due to 25C, with its 92% of United States government bonds. To be sure, if this one were left

Distribution of Bonds and Stocks According to Grade

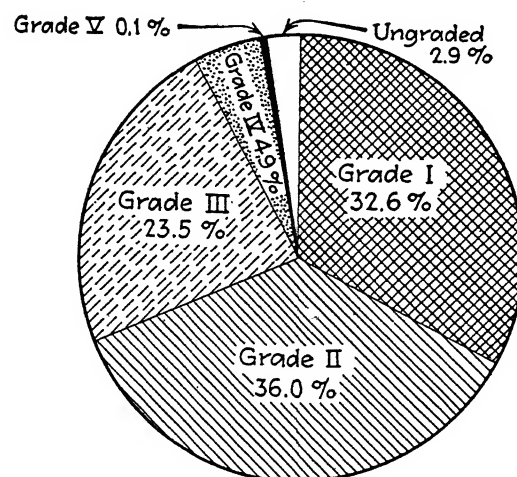
(According to Wood, Struthers and Company's grading system)

BONDS



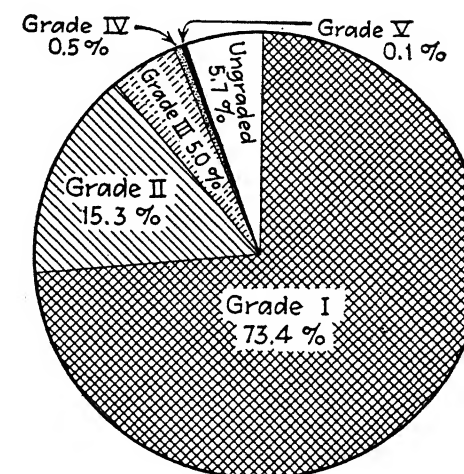
Grade I	\$ 72,851,760
II	104,016,460
III	69,568,270
IV	13,058,840
V	711,230
Ungraded	7,247,570
TOTAL	\$ 267,454,130

PREFERRED STOCKS



Grade I	\$ 13,624,600
II	15,065,520
III	9,817,400
IV	2,063,190
V	47,640
Ungraded	1,194,640
TOTAL	\$ 41,812,990

COMMON STOCKS



Grade I	\$ 39,296,860
II	8,210,280
III	2,648,930
IV	275,100
V	62,280
Ungraded	3,077,920
TOTAL	\$ 53,571,370

Total of Bonds and Stocks \$ 362,838,490

out, the Group C proportion in Grades I and II would be about the same as that of Groups A and B, but, on the other hand, if both the above mentioned universities were omitted the percentage in high grades of the remaining nine members of Group C would be almost exactly as it now stands. Furthermore, it is probably fair to assume that if the funds of 25C were committed to corporate obligations instead of government bonds, the same conservatism which now dominates its policy would lead to a concentration in the two upper grades. Further illustration of the better quality achieved by the institutions having the larger funds lies in the fact that, of the seven funds with over 75% of their bonds in Grades I and II, five are members of Group C.

Relationship of Bond Quality to Distribution by Class. In Table I it is shown that the proportion of bonds held by different institutions varies from 0.7%, on the one hand, to 81.6% at the other extreme—the four conspicuously small ones ranging from 0.7% to 16.1% as opposed to the composite average of 49.8%. The average percentage of Grade I and II bonds held by these four colleges is only 36.5% against the Composite Fund total of 66.2%, thus indicating that those who invest in but few bonds are less particular as to their quality.

The ten largest bond buyers, proportionately, range from 63.5% to 81.6% in Grades I and II. Their average of these "Excellent" and "Good" bonds is 68.1%, whereas the Composite Fund, by similarly averaging the percentages of the thirty schools, shows but 60.7% in the two upper grades. This implies that those who invest most widely in senior securities also exercise more than average care in their selection.

Relationship of Bond Quality to Distribution by Field. The division of the Composite Fund between various

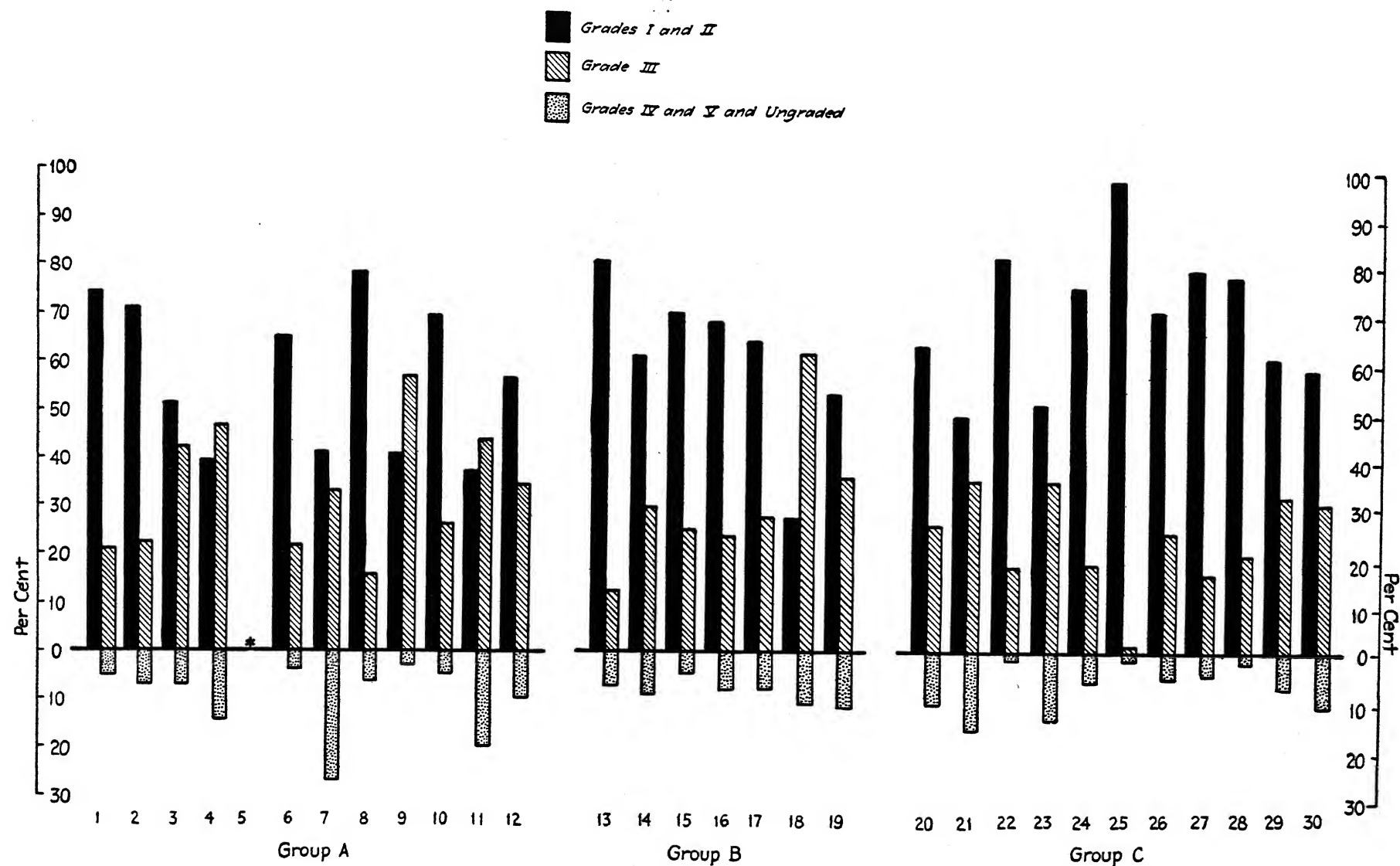
fields of investment discussed in Chapter IV, is unavoidably weighted by the greater bondholdings of a few larger institutions, as illustrated by the fact that 30C holds more bonds than the fifteen smallest holders combined and that the nine largest holders of bonds have nearly 70% of the total amount of bonds held by all thirty universities and colleges. It has seemed desirable, therefore, to approach in another way an unweighted consensus of the judgment of the various investment policies by calculating the arithmetical average of the percentages invested in different fields. For the Composite Fund these arithmetical percentages compare with the volume percentages as follows:

	ARITHMETICAL PERCENTAGES	VOLUME PERCENTAGES
Railroad	31.7%	32.5%
Public Utility	33.9	35.8
Industrial	18.1	16.6
U. S. Government	4.0	6.7
Municipal	4.7	1.9
Foreign	5.6	5.0
Mortgage Bonds	2.0	1.5
	100.0%	100.0%

These two divisions do not vary greatly, but the arithmetical averages of percentages will be useful to compare with similar arithmetical averages of smaller groups. The fact that municipals, for instance, are considerably smaller by percentage of volume merely bears out the previously observed fact that few of the larger colleges hold them in any great amount.

The ten universities having the highest proportions of their bonds in Grades I and II range from 70.7% to 97.1%. These ten funds, whose bond investments are most conservative, show an arithmetical average in the two upper grades of 79%, as compared with a similar average for the Composite Fund of 60.7%. Of these, five are in Group C and four in Group A.

Comparative Quality Distribution of Bonds



*Omitted, as bond account amounts to less than one per cent of total fund

The ten colleges with the smallest proportions of bonds in Grades I and II range from none up to 53.2% with an average of 39%. Of these ten funds weakest in higher grade bonds, six are in Group A and two in each of the other groups.

Examination of the distribution of the bonds of these ten best and ten worst bond accounts shows the following approximate arithmetical averages in comparison with the Composite Fund:

	TEN BEST	TEN WORST	COMPOSITE
Average Per Cent of Bonds in Grades I and II	79.0%	39.0%	60.7%
Field of Investment:			
Railroad	36.5%	23.5%	31.7%
Public Utility	36.0	32.0	33.9
Industrial	11.0	27.0	18.1
U. S. Government	11.0	0.2	4.0
U. S. Municipal	1.0	5.5	4.7
Foreign	3.5	7.8	5.6
Mortgage Bonds	1.0	4.5	2.0

The ten so-called best colleges, having 94.9% or more of their bonds in Grades I, II, and III, compare with the ten so-called worst colleges, having less than 90% each in the three upper grades as follows:

	TEN BEST	TEN WORST	COMPOSITE
Average Per Cent of Bonds in Grades I, II, and III	96.5%	80.0%	89.8%
Field of Investment:			
Railroad	38.0%	17.0%	31.7%
Public Utility	33.0	33.0	33.9
Industrial	14.0	28.5	18.1
U. S. Government	10.0	0.5	4.0
U. S. Municipal	2.5	8.0	4.7
Foreign	2.0	8.5	5.6
Mortgage Bonds	0.5	4.5	2.0

One additional comparison might be made between the ten best, namely, those institutions whose holdings of bonds of Grades IV and V are limited to from none to 4.2% and

the ten worst, whose holdings of "poor" and "bad" bonds mount up to from 7.2% to 51%. With two or three exceptions on either side, these are the same institutions as in the preceding tabulations, but the percentage division between fields of investment is somewhat different, according to the following distribution:

	TEN BEST	TEN WORST	COMPOSITE
Average Per Cent of Bonds in Grades IV and V	2.1%	13.0%	7.0%
Field of Investment :			
Railroad	37.0%	21.5%	31.7%
Public Utility	33.0	31.0	33.9
Industrial	15.5	21.0	18.1
U. S. Government	10.0	1.0	4.0
U. S. Municipal	1.0	11.5	4.7
Foreign	2.5	10.5	5.6
Mortgage Bonds	1.0	3.5	2.0

In each of the foregoing tabulations, it is shown that the bond accounts having the highest quality have a moderately larger proportion of railroad bonds than the Composite Fund, and a distinctly larger proportion than the bond accounts of the lowest grade. This indicates a marked leaning toward rail obligations, at the time this analysis was undertaken, on the part of the more conservatively invested funds.

These identical institutions show the same tendency, although to a lesser degree, in their holdings of utility bonds.

The "best tens" show industrial bonds held in lesser proportion than by the Composite Fund, while the "worst tens" exhibit a much greater proportion in this field than the average. The less conservative funds, in each comparison, are shown to have as much or more industrials as rails, whereas the Composite Fund shows only two-thirds and the more conservative funds barely one-third as much industrials as rails. This argues rather definitely against disproportionately large holdings of industrial bonds.

As might be expected, the funds of low average quality have little or no United States bonds, although the substantial amount in the better funds is due to the inclusion of the heavy holdings of 25C. Even without this, however, there would be a slight preference for United States bonds shown by the more conservative funds.

A very marked differentiation occurs in the use of municipal bonds, which is most sparing in the funds whose average quality is highest. The funds which grade low, on the other hand, have up to an average of 11.5% in municipals compared with less than 5% in the Composite Fund. The ten funds with the highest proportion of Grades I and II bonds have only 1% in municipals.

In the use of foreign bonds, the difference is striking, with the conservatively invested portfolios showing much less in foreigners than the Composite Fund, and the more speculative funds having averages from half again to almost twice as large. Among those whose bonds grade lower are several individual institutions with around 20% of their bondholdings in foreign bonds, who could draw a worth while example from the combined experience of the best portfolios.

The commitment of the high quality funds in mortgage bonds is insignificant, amounting in the case of the more conservative colleges from $\frac{1}{2}\%$ to 1% and, in the case of the less conservative ones to around 4%, as against 2% for the Composite Fund.

The foregoing indicates that the Trustees of the funds whose bonds prove to be of the highest average quality show a preference for railroad, public utility, and United States government bonds; and a marked aversion to industrial, municipal, foreign, and real estate bonds. Conversely, those whose bonds grade lowest, according to investment standards, have placed relatively larger portions of their funds

in the four types last mentioned, and have a slightly sub-average interest in utilities and a distinct leaning away from railroad and government bonds.

Comparative Quality of Railroad, Public Utility, and Industrial Bonds. Distribution by grade of the bonds in the Composite Fund, according to the three leading fields of investment, is graphically set forth in Chart 14. The average quality of the railroad bondholdings is considerably above that of the public utilities, which, in turn, is materially better than that of the industrials, as follows:

FIELD	GRADES I AND II	GRADE III	GRADES IV, V, AND UNGRADED
Railroad Bonds	77.7%	20.9%	1.4%
Public Utility Bonds	60.6	31.3	8.1
Industrial Bonds	44.4	42.2	13.4

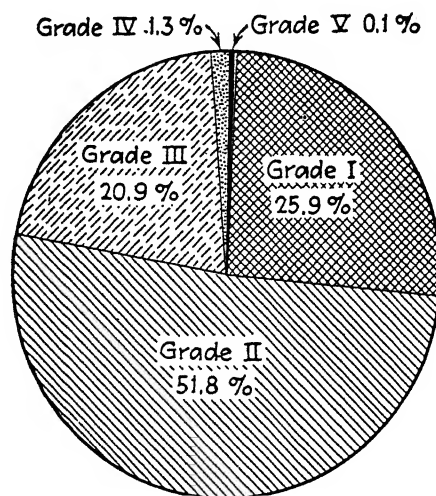
The almost entire absence of ungraded items among railroad and public utility bonds—\$78,410 market value out of total holdings of nearly \$183,000,000—is evidence of the ready availability of complete, reliable information in these two fields, which is one of the strongest reasons for preferring them to industrials.

The fact that the percentage of railroad bonds below Grade II, according to market values of November, 1931, is so much smaller than that of public utilities, is partially explained by the more drastic price declines suffered by low and medium-grade rail bonds than like-graded issues in the utility field. It is also true, however, that the further serious falling off in railroad traffic and earnings since these securities were valued and graded would dictate some downward revision of the measure of quality of the junior obligations of many hitherto strong systems. In view of this, it is fortunate that a substantial proportion of the collegiate railroad bonds are of the seasoned underlying type, the intrinsic soundness of which is not open to question if our railroad industry is to survive at all.

Distribution of Bonds According to Grade

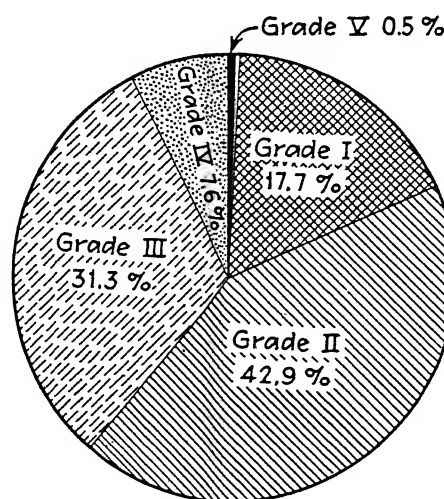
Based on November, 1931, Market Values

RAILROADS



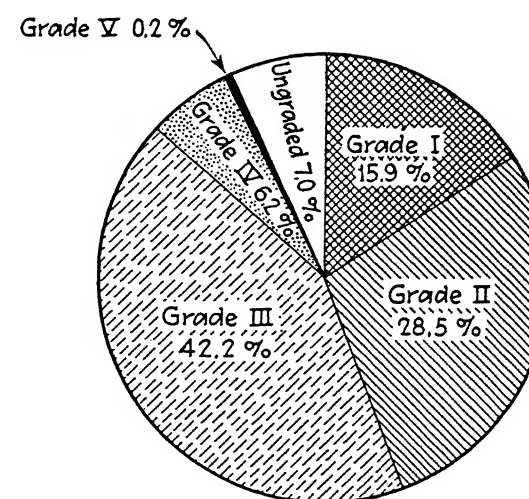
Grade I	\$ 22,508,740
II	45,039,450
III	18,198,390
IV	1,084,520
V	78,680
Ungraded	59,250
TOTAL	\$ 86,969,030

PUBLIC UTILITIES



Grade I	\$ 16,921,570
II	41,108,500
III	29,965,960
IV	7,331,940
V	492,880
Ungraded	19,160
TOTAL	\$ 95,840,010

INDUSTRIALS



Grade I	\$ 7,077,410
II	12,679,690
III	18,797,070
IV	2,758,930
V	106,520
Ungraded	3,097,700
TOTAL	\$44,517,320

Assignment of nearly 40% of public utility bonds to grades below II is mainly a reflection of the inferior investment status and uncertain outlook of the obligations of holding companies, as well as the bonds of some operating companies which have been weakened by financial support extended to the holding companies controlling them. Market values of such issues had not, at the end of 1931, declined to the same extent as had the prices of lower-grade railroad bonds.

Failure of 55% of the industrial bonds in the Composite Fund to merit inclusion in the two upper grades reflects the essentially unstable character of industrial enterprises, most of which depend for their strength upon management and going-concern value, and do not ordinarily possess property with such adequate foreclosure value as to afford convincing security for bond issues.

Comparison of Quality of Bonds with an Outstanding Foundation. Chart 15 compares the distribution by grades of the bondholdings of the Composite Fund with those of an outstanding foundation, which is shown as follows:

GRADE		THIRTY UNIVERSITIES AND COLLEGES	AN OUTSTANDING FOUNDATION
I	Excellent	27.3%	41.7%
II	Good	38.9	41.7
III	Fair	26.0	15.0
IV	Poor	4.9	1.1
V	Bad	0.2	0.1
	Ungraded	2.7	0.4

With 83% of its bonds in the two upper grades, the foundation is obviously better fortified than the universities with only 66%, while with only one and one-half per cent below Grade III, it faces much less threat of loss than is involved in the 8% held by the Composite Fund. Its approximate 42% in Grade I alone, however, probably repre-

sents excess security and marketability which is hardly essential to the college endowment, and therefore need not be taken as a standard.

Proposed Distribution of Bonds as to Quality. A sensible distribution as to grade of a university fund, in which entire freedom of action is possible, would be as follows:

Grade I	30%
Grade II	45
Grade III	25
Grade IV	0
Grade V	0

The proportion thus allotted to Grade III may appear liberal, but is influenced by the probability that gradually improving conditions may work a betterment in the quality of many such issues, which, of course, have been much depressed marketwise. When the next era of prosperity is well advanced, the proportions could be gradually shifted to something like the following:

Grade I	35%
Grade II	50
Grade III	15

In this process, only the stronger Grade III issues would be retained, and the fund thus fortified to meet any reversal of the business trend which might eventuate.

QUALITY OF PREFERRED STOCKS

In Table VI is set forth the grading of the preferred stocks in each fund and in each group. The \$41,812,990 total of preferred stocks is distributed as follows:

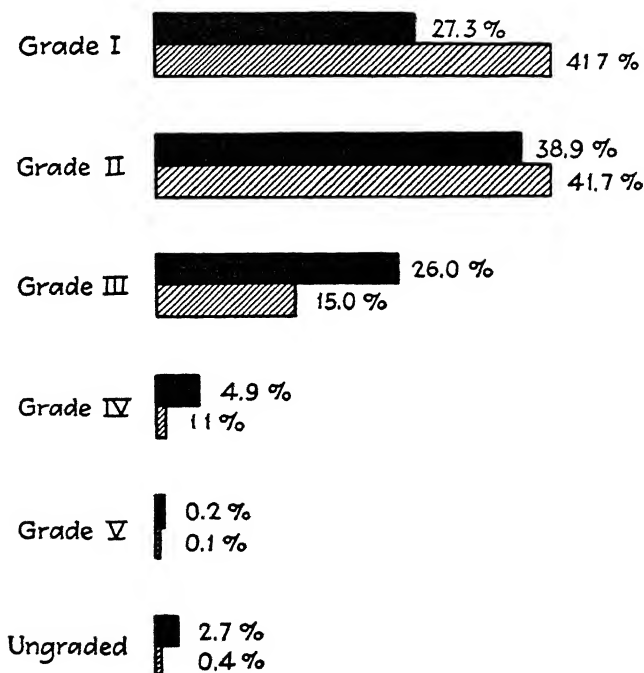
GRADE		AMOUNT	PROPORTION
I	Excellent	\$13,624,600	32.6%
II	Good	15,065,520	36.0
III	Fair	9,817,400	23.5
IV	Poor	2,063,190	4.9
V	Bad	47,640	0.1
	Ungraded	1,194,640	2.9

Comparative Distribution of Bonds

Thirty Universities and Colleges
and an Outstanding Foundation

According to Grade

Universities and Colleges
Outstanding Foundation



Among preferred issues true investment quality is rarely found below Grade II, so that the combined 31.4% of the above which falls under that grading must be considered open to suspicion. Accordingly, the Composite Fund exhibition of 68.6% of preferreds in the two upper grades is distinctly less satisfactory than the 92.2% of bonds in the three upper grades.

Average Quality of Preferred Stocks by Groups. The tendency of the universities having the larger funds to invest more conservatively is again illustrated in respect to preferred stocks. In Grade I alone the comparison shows in Group A, 31.7%; in Group B, 13.9%; and in Group C, 41.0%. The less favorable Group B showing is due to one college, 17B, which is the largest proportionate holder of preferred stocks—28% of all its investments. These, however, average low in quality, with only 7.5% in Grade I. With respect to the percentages of preferred stocks in the two upper grades combined, the comparison showing Group A with 65.6%, Group B with 64.2%, and Group C with 71.3%, also favors the larger funds.

Quality of Preferred Stocks Related to Distribution by Class. In examining bond quality, it was revealed that those schools with relatively large commitments in bonds also maintained better than average quality, but in the case of preferreds, there does not seem to be the same distinction. In six funds, preferreds are either entirely absent or amount to less than two-tenths of one per cent. In the next twelve, the preferred stocks, which range between 1.5% and 5.7% of the total, average 68.8% in Grades I and II. In the twelve having the largest proportions of senior stocks, which range from 10.9% to 28% of the total fund, the average in the two upper grades is only 65.3%, due in part to the fact that the largest proportionate holder, 17B, has the poorest quality with only 32.9% in Grades I and II.

TABLE VI

DISTRIBUTION OF PREFERRED STOCKS ACCORDING TO GRADE

UNIVERSITIES AND COLLEGES	GRADE I		GRADE II		GRADE III		GRADE IV		GRADE V		UNGRADED		TOTAL		UNIVERSITIES AND COLLEGES
	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	
1 A	\$ 22,950	14.2%	\$ 75,280	46.4%	\$ 40,930	25.3%	\$ 22,920	14.1%	\$ —	— %	\$ —	— %	\$ 162,080	100%	1 A
2 A	40,000	31.7	22,000	17.4	63,950	50.7	—	—	200	.2	—	—	126,150	100	2 A
3 A	34,100	7.0	169,440	34.8	255,690	52.6	27,100	5.6	—	—	—	—	486,330	100	3 A
4 A	129,900	15.6	491,980	59.0	155,350	18.6	41,100	4.9	—	—	15,570	1.9	833,900	100	4 A
5 A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5 A
6 A	568,700	48.4	465,010	39.6	137,920	11.7	4,000	.3	—	—	—	—	1,175,630	100	6 A
7 A	192,430	48.6	19,680	5.0	168,850	42.7	5,400	1.4	—	—	9,000	2.3	395,360	100	7 A
8 A	290,500	81.5	46,630	13.1	13,750	3.9	1,400	.4	3,900	1.1	—	—	356,180	100	8 A
9 A	333,610	39.3	94,800	11.2	262,750	30.9	72,400	8.5	13,000	1.5	72,840	8.6	849,400	100	9 A
10 A	136,400	14.6	396,900	42.3	401,040	42.7	4,000	.4	—	—	—	—	938,340	100	10 A
11 A	2,550	50.3	940	18.5	—	—	1,580	31.2	—	—	—	—	5,070	100	11 A
12 A	19,400	7.6	107,900	42.3	68,000	26.6	—	—	—	—	60,000	23.5	255,300	100	12 A
13 B	194,970	59.8	85,060	26.1	13,700	4.1	—	—	860	.3	31,600	9.7	326,190	100	13 B
14 B	—	—	—	—	10,000	71.8	3,850	27.6	80	.6	—	—	13,930	100	14 B
15 B	575,000	35.1	603,700	36.9	355,580	21.7	101,210	6.2	400	.1	—	—	1,635,890	100	15 B
16 B	41,950	8.5	211,970	43.1	217,430	44.2	4,900	1.0	1,040	.2	14,880	3.0	492,170	100	16 B
17 B	334,000	7.5	1,134,350	25.4	2,308,750	51.7	512,120	11.5	—	—	173,080	3.9	4,462,300	100	17 B
18 B	214,590	6.1	3,280,920	92.8	32,810	.9	3,110	.1	1,620	—	3,630	.1	3,536,680	100	18 B
19 B	173,400	30.9	221,100	39.4	166,780	29.7	—	—	—	—	—	—	561,280	100	19 B
20 C	44,470	86.3	—	—	5,670	11.0	—	—	—	—	1,400	2.7	51,540	100	20 C
21 C	—	—	14,750	53.4	11,640	42.1	—	—	1,250	4.5	—	—	27,640	100	21 C
22 C	1,261,700	49.0	816,430	31.7	428,100	16.7	67,100	2.6	—	—	—	—	2,573,330	100	22 C
23 C	994,770	37.4	876,540	32.9	471,470	17.7	232,950	8.7	—	—	87,200	3.3	2,662,930	100	23 C
24 C	106,450	29.2	113,750	31.2	111,650	30.7	22,910	6.3	—	—	9,600	2.6	364,360	100	24 C
25 C	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25 C
26 C	56,600	3.9	716,510	49.3	459,300	31.6	169,100	11.6	13,000	.9	40,000	2.7	1,454,510	100	26 C
27 C	683,950	54.6	382,030	30.5	145,280	11.6	—	—	880	.1	39,440	3.2	1,251,580	100	27 C
28 C	849,030	56.5	583,500	38.8	50,760	3.4	19,690	1.3	—	—	—	—	1,502,980	100	28 C
29 C	4,456,100	41.8	2,797,630	26.3	2,535,040	23.8	481,120	4.5	11,410	.1	377,400	3.5	10,658,700	100	29 C
30 C	1,867,080	40.1	1,336,720	28.7	925,210	19.9	265,230	5.7	—	—	259,000	5.6	4,653,240	100	30 C
Group A (1 A-12 A)	1,770,540	31.7	1,890,560	33.9	1,568,230	28.1	179,900	3.2	17,100	.3	157,410	2.8	5,583,740	100	Group A (1 A-12 A)
Group B (13 B-19 B)	1,533,910	13.9	5,537,100	50.2	3,105,050	28.2	625,190	5.7	4,000	—	223,190	2.0	11,028,440	100	Group B (13 B-19 B)
Group C (20 C-30 C)	10,320,150	41.0	7,637,860	30.3	5,144,120	20.4	1,258,100	5.0	26,540	.1	814,040	3.2	25,200,810	100	Group C (20 C-30 C)
Composite (A, B & C)	13,624,600	32.6	15,065,520	36.0	9,817,400	23.5	2,063,190	4.9	47,640	.1	1,194,640	2.9	41,812,990	100	Composite (A, B & C)

Quality of Preferred Stocks Related to Distribution by Field. In discussing the fields of investment favored by collegiate buyers of preferred stocks, it will be recalled from Chapter IV that the preferred stocks of the Composite Fund show the following volume percentages:

PREFERRED STOCKS

	RAILROAD	UTILITY	INDUSTRIAL
Group A	24.3%	51.6%	24.1%
Group B	6.4	48.6	45.0
Group C	12.8	44.6	42.6
Composite Fund	12.6	46.6	40.8

It is thus apparent that the smaller funds favor railroad preferreds, and that Group C, owing to the size of its funds, has a predominating influence on the division of the Composite Fund. Therefore, in an effort to approach an average of the judgment of each investment policy, the arithmetical average percentage of the thirty funds has been calculated, thus avoiding the greater weight of the size of the larger funds. This is desirable because six funds combined hold nearly 70% of the preferred stocks in the Composite Fund and, therefore, dominate the percentage distribution by volume. In averaging the percentages, two funds with no preferreds and four with infinitesimal amounts have been excluded, leaving the following average of the percentage distribution of the remaining 24.

PREFERRED STOCKS

	RAILROAD	UTILITY	INDUSTRIAL
Group A (10 funds)	33.6%	49.0%	17.4%
Group B (6 funds)	19.2	40.8	40.0
Group C (8 funds)	14.3	44.6	41.1
Composite (24 funds)	23.6	45.5	30.9

As between groups, of course, these figures show the same tendencies, but the composite average is more greatly influenced by the leaning of the smaller funds toward rails and away from industrials.

The ten funds with the largest proportions of preferred stocks in the two higher grades, ranging from 70.3% to 98.9% and averaging 84.5%, include six of the larger investors in preferred stocks. The ten with the smallest holdings in Grades I and II, ranging between 32.9% and 60.4% and averaging 50%, also include five of the largest preferred holders. The two sets, which include all but one of the schools having more than 10% of their endowments in preferred issues, compare as follows:

PREFERRED STOCKS

	RAILROAD	UTILITY	INDUSTRIAL
Ten Best	24.2%	33.3%	42.5%
Ten Worst	19.7	58.7	21.6
Composite Arithmetical Percentage	23.6	45.5	30.9
Composite Volume Percentage	12.6	46.6	40.8

The ten funds with the highest proportion of preferred stocks in Grade I alone, ranging from 81.5% down to 30.3%, average 52%. As against these, the ten with the greatest percentages in Grades IV and V, ranging from 14.1% to 4.9%, average 9.5%. The comparison follows:

PREFERRED STOCKS

	RAILROAD	UTILITY	INDUSTRIAL
Ten Best (Grade I)	30.5%	37.9%	31.6%
Ten Worst (Grades IV and V)	17.2	52.9	29.9

A striking preference for industrial preferred stocks is shown by the funds with the greatest proportion in Grades I and II, and an equally marked favoring of public utility issues on the part of those making the less conservative showings. The better-quality funds also show a moderate inclination toward railroad preferreds.

As possibly throwing some light on the tendencies of these funds, an examination of Fund 17B, to which brief reference has previously been made, is illuminating. This fund has the largest proportion in preferred stocks, 28% ;

one of the largest proportions of public utilities among its preferreds, 86%; and the smallest proportion of its preferred stocks in the two upper grades, 32.9%. Reference to its investments reveals that they include many large blocks of the preferred stocks of public utility holding companies whose "preference" is over the common stocks of the same holding companies. These preferred stocks, however, are subordinate not only to the bonds of the same companies, but also to the bonds and preferred stocks of all their subsidiaries. In this class of stock, numerous omissions of dividends have already occurred, together with wide declines in market value.

Comparison of Quality of Preferred Stocks with an Outstanding Foundation. It will be recalled from Chart 10 that the preferred stocks of the large foundation which has been taken for comparative purposes were distributed very similarly, as to field of investment, to those of the Composite Fund. This fact makes the contrast in quality appearing on Chart 16 all the more striking, since the foundation shows no less than 91% in Grade I, and no preferred stocks grading below II. In investing its funds in senior stock issues, it has avoided those of utility holding companies and has largely concentrated on the two most desirable types—prior stocks of leading industrial companies, preceded by little or no debt, and those of utility operating companies serving large communities. Both as to distribution and quality the universities are here furnished with an admirable model. As a proposed distribution as to grade, it would seem wise to aim at no less than 75% in Grade I and 25% in Grade II, with nothing below except issues which either cannot be sold at a fair price or which the donor has requested or stipulated be retained.

Quality of Common Stocks. Admitting that grading of common shares is more difficult and less accurate than that

of bonds, certain standards of long-term investment worth can nevertheless be applied—the result of which appears in detail in Table VII, and is as follows for the \$53,571,370 market value of common stocks in the Composite Fund:

GRADE	AMOUNT	PROPORTION
I Excellent	\$39,296,860	73.4%
II Good	8,210,280	15.3
III Fair	2,648,930	5.0
IV Poor	275,100	.5
V Bad	62,280	.1
Ungraded	3,077,920	5.7

The apparent liberality of these gradings, when compared with those of bonds, is tempered by the premise that investment merit sufficient to attract institutional investors seldom can be expected below Grade I.

We have seen that the common stock commitment of the Composite Fund is largely concentrated in the institutions having the largest funds. Group C holds four-fifths of the total volume, so that the above quality distribution is principally a reflection of its collective policy. With 78% in the highest grade, Group C is distinctly superior to Group B, with only 43.2%, although not substantially better than Group A, which has 77.1%. It will be recalled from the preceding discussion that Group B is also deficient in the quality of its preferred stocks.

Quality of Common Stocks Related to Distribution by Class. Each of nine universities has over 10% of its assets in common stocks, of which six are members of Group C. Of these nine, each of the five having over 18% in common stocks shows quality better than the composite average, thus indicating again that those who devote more of their attention to a particular class of investment exhibit better selection within that class.

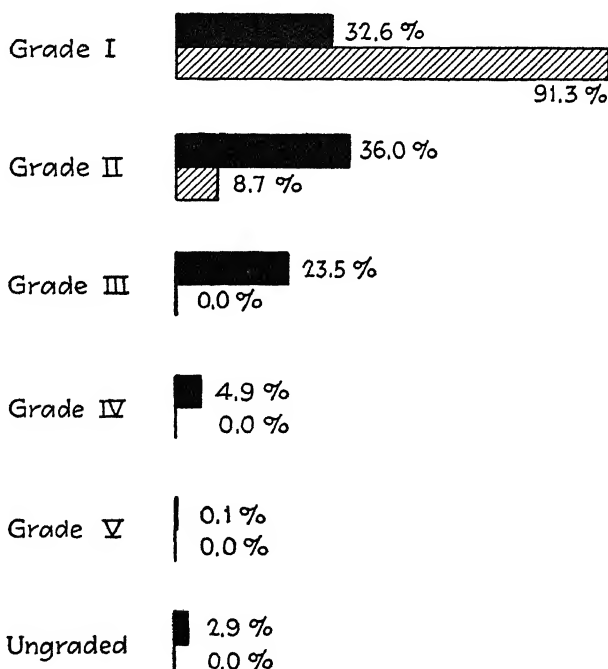
Quality of Common Stocks Related to Distribution by Field. Concentration of the common stockholdings of the

Comparative Distribution of Preferred Stocks

Thirty Universities and Colleges
and an Outstanding Foundation

According to Grade

Universities and Colleges
Outstanding Foundation



110 TRUSTEESHIP OF AMERICAN ENDOWMENTS

Composite Fund in a few large institutions is even more marked than in the case of preferreds, since four universities hold nearly two-thirds of the total. The volume distribution of common stocks, according to the field of investment, is as follows:

	RAILROAD	UTILITY	INDUSTRIAL	BANK AND INSURANCE
Group A	20.9%	18.3%	37.0%	23.8%
Group B	6.9	12.3	60.2	20.6
Group C	14.2	20.5	48.1	17.2
Composite	13.7	19.3	48.9	18.1

Apparently the smaller funds favor railroad, bank, and insurance stocks; those of medium size are heavy in industrials; and the larger funds naturally conform closely to the Composite Fund.

In compiling for comparative purposes the following arithmetical averages of the percentage distribution of common stocks, according to the field of investment, there have been omitted six funds which hold less than one per cent in common stocks:

	COMMON STOCKS			
	RAILROAD	UTILITY	INDUSTRIAL	BANK AND INSURANCE
Group A (10 funds)	27.6%	16.4%	36.6%	19.4%
Group B (5 funds)	12.0	24.0	49.0	15.0
Group C (9 funds)	23.6	20.9	38.2	17.3
Composite (24 funds)	22.8	19.7	39.8	17.7

Reflecting the average judgment of those responsible for the common stocks held in these portfolios, the above figures show a truly remarkable parallel between the composite average and that of Group C, since the latter does not dominate the total as it does in the volume figures. Comparison of these two tables indicates that the larger holders of common stocks incline toward industrials, while a considerable number of holders favor railroads, with

TABLE VII

DISTRIBUTION OF COMMON STOCKS ACCORDING TO GRADE

UNIVERSITIES AND COLLEGES	GRADE I		GRADE II		GRADE III		GRADE IV		GRADE V		UNGRADED		TOTAL		UNIVERSITIES AND COLLEGES
	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	AMOUNT	PROPOR- TION	
1 A	\$ 308,280	93.2%	\$ 3,830	1.2%	\$ 17,910	5.4%	\$ 620	.2%	\$ —	— %	\$ —	— %	\$ 330,640	100%	1 A
2 A	154,530	57.4	41,930	15.6	61,140	22.7	—	—	—	—	11,600	4.3	269,200	100	2 A
3 A	97,650	61.0	34,930	21.8	11,200	7.0	—	—	—	—	16,250	10.2	160,030	100	3 A
4 A	209,770	58.5	124,110	34.6	24,560	6.9	—	—	—	—	—	—	358,440	100	4 A
5 A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5 A
6 A	729,780	79.8	57,830	6.3	61,000	6.7	—	—	—	—	65,570	7.2	914,180	100	6 A
7 A	45,870	38.6	340	.3	72,280	60.9	260	.2	—	—	—	—	118,750	100	7 A
8 A	266,500	72.3	77,670	21.0	22,890	6.2	1,750	.5	—	—	—	—	368,810	100	8 A
9 A	408,930	95.7	6,920	1.6	1,040	.3	—	—	—	—	10,320	2.4	427,210	100	9 A
10 A	136,600	100.0	—	—	—	—	—	—	—	—	—	—	136,600	100	10 A
11 A	22,520	73.5	2,730	8.9	3,000	9.8	2,400	7.8	—	—	—	—	30,650	100	11 A
12 A	525,850	79.9	88,550	13.5	25,870	3.9	—	—	—	—	18,000	2.7	658,270	100	12 A
13 B	359,620	50.5	199,340	28.0	49,810	7.0	39,210	5.5	35,330	5.0	28,680	4.0	711,990	100	13 B
14 B	—	—	230	1.2	—	—	—	—	—	—	18,480	98.8	18,710	100	14 B
15 B	262,790	73.3	69,820	19.4	10,300	2.9	14,080	3.9	600	.2	1,020	.3	358,610	100	15 B
16 B	1,868,540	83.6	157,500	7.1	127,510	5.7	24,810	1.1	—	—	56,530	2.5	2,234,890	100	16 B
17 B	194,520	35.8	113,100	20.8	96,170	17.7	58,190	10.7	21,040	3.9	60,860	11.1	543,380	100	17 B
18 B	290,630	9.4	2,411,860	78.3	364,560	11.9	13,240	.4	—	—	230	—	3,080,520	100	18 B
19 B	75,740	62.8	44,240	36.7	560	.4	—	—	110	.1	—	—	120,650	100	19 B
20 C	1,854,820	69.5	785,270	29.4	11,610	.4	800	—	2,200	.1	15,920	.6	2,670,620	100	20 C
21 C	3,200	7.2	7,500	16.9	33,510	75.5	—	—	—	—	180	.4	44,390	100	21 C
22 C	760,620	75.3	176,410	17.5	67,500	6.7	2,280	.2	—	—	3,210	.3	1,010,020	100	22 C
23 C	2,459,670	78.3	358,120	11.4	32,650	1.0	8,580	.3	—	—	282,100	9.0	3,141,120	100	23 C
24 C	318,570	39.8	412,910	51.6	21,900	2.7	1,290	.2	—	—	45,130	5.7	799,800	100	24 C
25 C	—	—	—	—	—	—	—	—	—	—	10,000	100.0	10,000	100	25 C
26 C	6,244,720	84.8	203,400	2.8	468,600	6.4	—	—	—	—	443,050	6.0	7,359,770	100	26 C
27 C	5,204,600	91.8	259,040	4.6	69,140	1.2	14,700	.3	—	—	118,530	2.1	5,666,010	100	27 C
28 C	249,110	57.7	153,920	36.8	23,660	5.5	—	—	—	—	—	—	431,690	100	28 C
29 C	7,934,470	87.3	730,090	8.1	210,940	2.3	49,850	.5	3,000	—	161,740	1.8	9,090,090	100	29 C
30 C	8,308,960	66.4	1,683,690	13.5	759,620	6.1	43,040	.3	—	—	1,711,020	13.7	12,506,330	100	30 C
Group A (1 A-12 A)	2,906,280	77.1	438,840	11.6	300,890	8.0	5,080	.1	—	—	121,740	3.2	3,772,780	100	Group A (1 A-12 A)
Group B (13 B-19 B)	3,051,840	43.2	2,996,090	42.4	648,910	9.2	149,530	2.1	57,080	.8	165,300	2.3	7,068,750	100	Group B (13 B-19 B)
Group C (20 C-30 C)	33,338,740	78.0	4,775,350	11.2	1,699,130	4.0	120,540	.3	5,200	—	2,790,880	6.5	42,729,840	100	Group C (20 C-30 C)
Composite (A, B & C)	39,296,860	73.4	8,210,280	15.3	2,648,930	5.0	275,100	.5	62,280	.1	3,077,920	5.7	53,571,370	100	Composite (A, B & C)

utilities and bank and insurance stocks about the same by volume as by average percentage.

Ten funds, which, as already noted, include most of the larger holders of equities, have from 78.3% to 100% of their common stocks in Grade I, with an average of 87.5%. The ten with the smallest holdings in the top grade vary between 9.4% and 66.4%, averaging 47.5%. These two sets of ten compare as follows in their average percentage distribution by fields:

	COMMON STOCKS			
	RAILROAD	UTILITY	INDUSTRIAL	BANK AND INSURANCE
Ten Best	23.6%	11.2%	39.1%	26.1%
Ten Worst	24.2	24.7	41.5	9.6
Composite Arithmetical Percentage	22.8	19.7	39.8	17.7

Among railroad and industrial stocks surprisingly little variation is shown, but the higher-graded lists include a notably greater proportion of bank and insurance stocks, offset by a smaller utility commitment. In these respects, it can hardly be said that either set makes a particularly favorable showing by comparison with either the composite average or with the suggested distribution by fields outlined in Chapter IV. It must be remembered that stocks are frequently acquired by gift and, therefore, do not always reflect the deliberate judgment of the finance committee of the university.

In so far as possible, sound investment practice dictates confining common stock ownership to shares of the highest quality.

THE CHANGING QUALITY OF INVESTMENT LISTS

Undoubtedly the holdings of the universities and colleges included in this study, like those of most investors, have since suffered a grievous deterioration in security as to re-

duce considerably the number of bond and stock issues clearly entitled to a place in the upper grades, and to increase correspondingly those in the lower grades. Recognition of the unfavorable and unpromising conditions affecting many corporations and governments might necessitate a lowering subsequently of the grades attached to numerous issues in the Composite Fund.

It cannot be accurately determined just how far such a reappraisal of the quality of securities should be carried at a time when all opinions as to the probable duration or the possible depth of the depression are purely conjectural.

Although the holdings of the Composite Fund averaged fairly high when appraised some months ago, they include issues aggregating many millions whose intrinsic security has so suffered in the interval as to render them unsuitable permanent investments, when judged by an adequate and consistent investment policy.

The relativity of quality of even the best securities included in the Composite Fund has become increasingly conspicuous. Likewise, many a rigid investment policy which was supposed to assure safety for a fund has proved inadequate when subjected to the test of meeting emergencies without precedent. Hence the usefulness, approaching necessity, of having a high degree of flexibility in both the policy and the mental attitude of those responsible for collegiate investments. The need of such flexibility is coming to be better appreciated by many who formerly were inclined to put faith in formal rules of procedure for the protection of invested funds. At least, the kaleidoscopic changes of the last three years have caused rather general recognition of the grave dangers of any quiescent policy of passive acceptance of newborn risks and prospective losses.

Many Trustees, noting the unfavorable effects of the depression on their holdings, have questioned the adequacy

of the investment policies pursued hitherto. Though these may have served well throughout a period of prosperity which culminated in a monstrous boom, doubt has naturally arisen as to their efficacy during a depression so broad, so long, and so deep as to distort the financial relations of the world.

Recent economic changes have so radically altered investment conditions as to indicate that ready adaptability to new requirements is one of the most vital characteristics of an efficient investment policy. Today policies, like securities, must be judged both by intrinsic merit and by fitness to meet specific but changing needs. Conservation of principal and maintenance of income may require prompt and decisive action along lines differing materially from those followed in times of general prosperity.

To protect the principal of collegiate funds from impairment in quality and productivity, by averting impending losses or seizing profits, is quite as important a responsibility as the selection of appropriate securities in the original establishment of such funds. The great variety of adjustments of the content of college lists that may become expedient to preserve any seemingly permanent fund, has been well demonstrated during the past few years. The experience of this period has conclusively proved both the folly of assuming that there can be permanent merit in any but superfine securities, and the necessity of taking action, at times, for the protection of a genuine investment fund on the basis of forecasts of the future that are essentially speculative. Many of those universities and colleges which have been most conscientiously conservative in their choice of securities, have suffered heavy losses in various forms, ranging from depreciation in book values to defaults in payments due. Such experiences clearly emphasize the essential importance of a continuous supervision of every

collegiate fund in the hope of anticipating unfavorable developments by timely adjustments of holdings.

Every decision, as to whether it is best to submit passively to whatever may befall an imperiled issue or to replace it with one involving less risk or a different hazard, must be based on speculative calculation of future possibilities. Risk-taking, so to speak, has been forced upon many conservative Trustees, who should face the fact that they are now responsible for a considerable amount of securities and other forms of investment which involve appreciable if not forbidding risks. From this embarrassing situation it is possible to escape by replacing such impaired items, either by issues of indisputably high quality or by frankly speculative issues believed to offer greater promise of profit.

In other words, since the mere exchange of defective issues for others of their kind is too often futile, the real choice is between seeking well assured safety, on the one hand, and making a rational effort to speculate more wisely, on the other hand. This latter procedure seems logically permissible to those who have not deliberately undertaken speculation, but have had it thrust upon them. The substitution of more promising for less attractive speculations may be defended by the fact that the market, made erratic by the panicky state of mind of necessitous sellers and fearful potential buyers, offers in a depression exceptional opportunities for profitable operations by those who act with cool discrimination.

Of course, securities already greatly depreciated because of danger of serious impairment may be replaced with a ruthless disregard for the resulting loss of principal, by others believed to be comparatively riskless. Ordinarily, however, the owner of inferior issues seems instinctively to prefer some compromise method such as the substitution of

securities admittedly lacking the quality prescribed by the standard previously maintained, but promising either a higher rate of return or an ultimate appreciation in value which would in part compensate for the accrued losses.

This procedure always has seemed questionable, because not sure to prove successful and because of the possible harmful consequence of lowering an established investment standard. Yet it may be fair to present, for comparison with the Spartan method of replacing defective holdings with others of the highest quality, an alternative which has of late found favor with investors normally disposed to be ultra-conservative. Some of them have deliberately concluded, since the depreciation of bonds once supposed to be sound has occurred at the precise time when the best common shares were available at correspondingly low prices, that they might reasonably improve the speculative position which has been thrust upon them, by replacing some of their poor bonds with good common stocks.

Obviously such a choice, exercised near the bottom of an industrial depression, differs widely in most essentials from the replacement of bonds by stocks near the top of a boom. But the chief justification, urged by those who have taken this course, is that, since the exchange or the retention of a bond selling at a tremendous discount is an inescapable speculation, it is rationally expedient to replace an admittedly ineffective speculative medium by another which utilizes the unique money-making possibilities of the business cycle.

They argue, in other words, that the best possible defense, when surrounded by a combination of adverse conditions, is a well-planned offensive. Thus they hope, without actually increasing their risks, to snatch victory from defeat—to regain that part of their capital already seemingly lost. While such strategy should not be urged upon

Trustees to whom it might be repugnant, its rejection implies acceptance of the stern alternative of forthwith replacing all threatened holdings with bonds of impregnable strength, whatever the cost. Yet even that course, however conservative the intentions of those interested, must be based upon speculative reasoning as to the probable fate of the imperiled holdings if retained.

That such resort to equities might be justified is further evidenced by the fact that, in view of recent conditions, some inherently conservative and farsighted institutions have taken pains to include among their holdings a larger than normal proportion of common shares, in the belief that these will compensate for the decline in the value and productivity of fixed-income securities. Like reasoning, if applied to the investment policy of many universities and colleges, might not be inconsistent with the intention of their Trustees to adhere closely to the principle of assuring, at any cost, the conservation of their resources.

However urgent the various investment problems pressing today for solution by the universities and colleges, all are infinitely less timely than the crucial decision as to whether to seek assured safety or to continue to carry speculative risks. For each institution with freedom in reshaping its holdings, restricted only by the obligation to avoid the acceptance of serious risks, the urgent need is to avert losses apparently impending and to utilize judiciously the opportunities afforded by extraordinary market conditions.

CHAPTER VIII

INCOME AND CURRENT RETURN

CONSERVATION of the principal of college endowment funds is everywhere regarded as the primary obligation of those concerned with handling them. There is less widespread recognition, however, of the correlative duty of Trustees to procure for their institutions the highest income consistent with safety.

The importance of giving due recognition to a secondary obligation to increase income is often seen in the limited extension of benevolences by those Trustees who are over-literal in interpreting their primary responsibility to conserve principal. A reconciliation of these two fiduciary obligations, apparently to some extent in conflict, may be characterized as enlightened expediency.

The question of expediency in the choice of securities for a college endowment would never arise in case its Trustees felt bound to attain the nearest approach to perfect security, as typified by United States government bonds. But apparently there are nowadays few, if any, who interpret their primary obligation so strictly. The average Board of Trustees is concerned, not mainly with eliminating risk, but primarily with reaching a wise decision as to the amount of risk that may be properly accepted in order to expand income.

If there is any sanctity in the obligation of Trustees to carry out the wishes of the founder of a fund as fully as the financial resources permit, then there is ample justification

for the same expansion of the beneficence, through the increase of these resources.

From the point of view of those having to anticipate what may be required to provide an ever increasing student body with modern education of the highest character, the amount of current income derivable from invested assets is a matter of vital importance. So no matter how highly safety may be valued in the abstract by truly conservative Trustees, none can entirely ignore rates of income.

Calculations of income in this study have been confined to the bonds and stocks, and have been based upon the rates of interest and dividends actually paid on the respective securities during the full year 1931. For the thirty universities and colleges in the Composite Fund, actual income on this basis was \$22,445,755—a figure the real significance of which can only be grasped by thinking of it in terms of its purchasing power.

The rate of return is based upon the market value, because in no other way can comparable results be derived. On the \$362,838,490 total market value of bonds and stocks in the Composite Fund, the above aggregate income represents an annual current return of 6.19%. This rate of income yield would, of course, vary with the market value upon which it is based. Consequently, it has since been materially higher as markets have declined more rapidly than has the actual income received. Furthermore, the 6.19% return does not in any sense represent the return on the ledger value of assets or the rate at which investments were originally made.

The detailed income and current return on bonds, preferred stocks, and common stocks for each school and for the Composite Fund is set forth in Table VIII. Since Group C contains 70% of the bonds and stocks, it is natural that its current return of 6.20% is almost the same as the

INCOME AND CURRENT RETURN ON MA

UNIVERSITIES AND COLLEGES	BONDS			PREFERRED STOCKS		
	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN
1 A	\$ 2,397,650	\$ 141,600	5.90%	\$ 162,080	\$ 11,980	7.39%
2 A	3,496,620	190,500	5.58	126,150	8,600	6.82
3 A	3,168,540	186,350	5.88	486,330	42,950	8.83
4 A	2,422,700	155,660	6.43	833,900	63,680	7.64
5 A	37,680	4,220	11.20	—	—	—
6 A	2,531,850	144,870	5.72	1,175,630	75,360	6.41
7 A	585,330	40,470	6.91	395,360	23,370	5.91
8 A	4,189,320	254,970	6.09	356,180	20,770	5.83
9 A	1,462,970	108,590	7.42	849,400	72,480	8.53
10 A	4,975,280	310,660	6.36	988,340	73,190	7.80
11 A	3,126,790	201,410	6.44	5,070	225	4.44
12 A	6,539,360	381,270	5.83	255,300	20,760	8.13
13 B	5,014,360	259,800	5.18	326,190	18,790	5.76
14 B	2,749,320	158,050	5.75	13,930	1,080	7.75
15 B	4,189,230	250,770	5.99	1,635,890	115,680	7.07
16 B	4,817,060	305,560	6.34	492,170	51,170	10.40
17 B	8,321,930	469,140	5.64	4,462,300	341,330	7.65
18 B	3,141,530	212,910	6.78	3,536,680	263,870	7.46
19 B	13,538,770	779,190	5.76	561,230	40,500	7.22
20 C	3,232,090	187,230	5.79	51,540	3,570	6.93
21 C	17,285,700	1,051,800	6.08	27,640	1,600	5.79
22 C	11,783,660	636,130	5.40	2,573,330	171,380	6.66
23 C	6,976,630	439,910	6.31	2,662,930	197,240	7.41
24 C	17,642,080	978,650	5.55	364,360	21,090	5.79
25 C	17,994,140	730,950	4.06	—	—	—
26 C	16,631,420	999,000	6.01	1,454,510	108,870	7.48
27 C	19,240,290	1,060,640	5.51	1,251,580	87,580	7.00
28 C	9,261,560	556,720	6.01	1,502,980	107,380	7.14
29 C	22,532,470	1,322,710	5.87	10,653,700	803,630	7.54
30 C	48,167,800	2,953,650	6.13	4,653,240	344,330	7.40
Group A (1 A-12 A)	34,934,090	2,120,570	6.07	5,583,740	413,365	7.40
Group B (13 B-19 B)	41,772,200	2,435,420	5.83	11,028,440	832,420	7.55
Group C (20 C-30 C)	190,747,840	10,917,390	5.73	25,200,810	1,846,470	7.33
Composite (A, B & C)	267,454,130	15,473,380	5.79	41,812,990	3,092,255	7.40

TABLE VIII

MARKET VALUE OF BONDS AND STOCKS

COMMON STOCKS			TOTAL BONDS AND STOCKS			UNIVERSITIES AND COLLEGES
AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	
\$ 330,640	\$ 24,380	7.37%	\$ 2,890,370	\$ 177,960	6.16%	1 A
269,200	19,160	7.12	3,891,970	28,260	5.61	2 A
160,030	12,680	7.92	3,814,900	241,980	6.34	3 A
353,440	31,250	8.72	3,615,040	250,590	6.93	4 A
—	—	—	37,680	4,220	11.20	5 A
914,180	74,250	8.12	4,621,660	294,480	6.37	6 A
118,750	3,750	3.16	1,099,440	67,590	6.15	7 A
368,810	27,180	7.37	4,914,310	302,920	6.16	8 A
427,210	37,540	8.79	2,739,580	218,610	7.98	9 A
136,600	13,080	9.58	6,050,220	396,930	6.56	10 A
30,650	1,690	5.51	3,162,510	203,325	6.43	11 A
658,270	52,700	8.01	7,452,930	454,730	6.10	12 A
711,990	47,880	6.73	6,052,540	326,470	5.39	13 B
18,710	1,210	6.46	2,781,960	160,340	5.76	14 B
358,610	28,710	8.01	6,183,730	395,160	6.39	15 B
2,234,890	146,420	6.55	7,544,120	503,150	6.67	16 B
543,380	50,670	9.32	13,327,610	861,140	6.46	17 B
3,080,520	23,980	.78	9,758,730	500,760	5.13	18 B
120,650	14,890	12.34	14,220,700	834,580	5.87	19 B
2,670,620	201,350	7.54	5,954,250	392,150	6.59	20 C
44,390	2,880	6.49	17,357,730	1,056,280	6.09	21 C
1,010,020	76,720	7.60	15,367,010	884,230	5.75	22 C
3,141,120	237,170	7.55	12,780,680	874,320	6.84	23 C
799,800	68,440	8.56	18,806,240	1,068,180	5.68	24 C
10,000	500	5.00	18,004,140	731,450	4.06	25 C
7,359,770	517,960	7.04	25,445,700	1,625,830	6.39	26 C
5,666,010	421,330	7.44	26,157,880	1,569,550	6.00	27 C
431,690	61,010	14.13	11,196,230	725,110	6.48	28 C
9,090,090	682,830	7.51	42,281,260	2,809,170	6.64	29 C
12,506,330	998,510	7.98	65,327,370	4,296,490	6.58	30 C
3,772,780	297,660	7.89	44,290,610	2,881,595	6.39	Group A (1 A-12 A)
7,068,750	313,760	4.44	59,869,390	3,581,600	5.98	Group B (13 B-19 B)
42,729,840	3,268,700	7.65	252,678,490	16,032,560	6.20	Group C (20 C-30 C)
53,571,370	3,880,120	7.24	362,838,490	22,445,755	6.19	Composite (A, B & C)

6.19% derived by the Composite Fund. As it has previously been observed that Group C averages materially better in quality than the other two, it is not surprising to find its average return well below that of Group A, which is 6.39%; but the fact that Group B shows an income return of only 5.98% is incongruous unless some explanation appears in the course of further investigation. Before dwelling further on the combined current return on all classes of securities, it will be advantageous first to consider the bonds and stocks separately.

INCOME AND CURRENT RETURN ON MARKET VALUE OF BONDS

Table IX portrays the detailed distribution of income and current return received by each institution from its bonds, according to the field of investment. The total return from bonds is shown at 5.79% for the Composite Fund, with a gradation downward in line with quality, from 6.07% for Group A, 5.83% for Group B, to 5.73% for Group C. Among individual funds one is abnormally high at 11.20%, which turns out to be 5A, with practically no bonds; and one abnormally low at 4.06%, which is 25C, with its enormous amount of governments.

Among investment axioms, none is more easily susceptible of proof than that income return varies inversely with safety of principal. The Composite Fund is no exception to this rule, as shown by the fact that the ten funds with the highest current return on their bonds, ranging from 6.13% up to 11.20%, have an arithmetical average percentage of their bonds in Grades I and II of only 43.2%, as compared with 60.7%, also on an arithmetical average basis, for the Composite Fund. In fact, the six of these ten bond accounts which have the highest average return are identical with the six having the lowest proportion of good

bonds. Conversely, the ten bond accounts showing the lowest yields, 4.06% to 5.76%, have an arithmetical average in Grades I and II of 73.7%, and of these the four with the lowest yields are the same four having the highest proportion of good bonds.

Among individual institutions there are more or less conspicuous exceptions to this general rule. Institution 8A, with 78.3% in "Good" and "Excellent" bonds, has nevertheless an average return of 6.09%; and 10A and 16B each has around 69% in the two upper grades, but each is obtaining a return of about 6.35%. The investment policies of these three schools would appear quite favorable from this point of view. On the other hand, several appear to be assuming risks out of proportion to the income return as exemplified by 19B with a yield of only 5.76%, despite only 53.2% in Grades I and II, 3A with only 5.90% from a list including only 51% of good bonds, and 12A with only 5.83%, despite a proportion of only 56.2% of bonds in the two upper grades. Such results, by themselves, can only be looked upon as distinctly unfavorable.

Taking a slightly different angle of the same proposition, the ten funds with the highest percentages of bonds in Grades I and II—shown on page 97—have an average current return of 5.50%, while the ten with the smallest proportions of bonds in the two upper grades show an average return of 6.92%. Omitting the abnormal 25C from the first mentioned ten, and 5A from the second, nevertheless leaves a comparison between a return of 5.77% for nine of the best quality and 6.45% for nine of the poorest quality.

Income and Current Return on Bonds According to Field of Investment. Current income return on market value of the bonds of the Composite Fund compare as follows by fields of investment:

TABLE IX

INCOME AND CURRENT RETURN ON MARKET VALUE OF BONDS DISTRIBUTED ACCORDING TO THE FIELD OF INVESTMENT

UNIVERSITIES AND COLLEGES	RAILROADS			PUBLIC UTILITIES			INDUSTRIALS			U. S. GOVERNMENTS			U. S. MUNICIPALS			FOREIGN BONDS			REAL ESTATE BONDS			TOTALS			UNIVERSITIES AND COLLEGES
	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	
1 A	\$ 757,780	\$ 47,740	6.29%	\$1,151,920	\$ 67,700	5.88%	\$ 111,300	\$ 6,790	6.10%	\$ 223,510	\$ 9,410	4.21%	\$ 19,600	\$ 1,350	6.89%	\$ 131,140	\$ 8,610	6.57%	\$ 2,400	\$ —	— %	\$ 2,397,650	\$ 141,600	5.90%	1 A
2 A	1,517,680	79,420	5.23	1,588,140	84,360	5.31	202,900	12,170	6.00	—	—	—	—	—	—	—	—	—	187,900	14,550	7.74	3,496,620	190,500	5.58	2 A
3 A	1,401,220	81,770	5.83	1,479,700	82,870	5.60	207,420	13,180	6.35	—	—	—	—	—	—	63,200	7,150	11.31	17,000	1,380	8.09	3,168,540	186,350	5.88	3 A
4 A	574,440	40,990	7.13	725,810	39,970	5.51	815,600	52,320	6.41	—	—	—	—	—	—	105,400	8,380	7.95	201,450	14,000	6.95	2,422,700	155,660	6.43	4 A
5 A	—	—	—	4,100	420	10.24	18,930	2,080	10.97	—	—	—	5,100	280	5.39	7,960	1,260	15.77	1,590	180	11.32	37,680	4,220	11.20	5 A
6 A	987,990	60,170	6.09	1,062,260	57,200	5.38	481,600	27,500	5.71	—	—	—	—	—	—	—	—	—	—	—	—	2,531,850	144,870	5.72	6 A
7 A	50,850	3,680	7.22	—	—	—	136,400	8,530	6.25	13,100	550	4.21	186,380	11,600	6.23	111,500	6,380	5.72	87,100	9,730	11.17	585,330	40,470	6.91	7 A
8 A	1,595,510	104,080	6.52	1,682,110	88,020	5.23	430,750	29,080	6.75	—	—	—	8,600	640	7.38	472,350	33,150	7.02	—	—	—	4,189,320	254,970	6.09	8 A
9 A	634,430	47,960	7.55	325,480	23,120	7.10	458,860	33,610	7.32	—	—	—	—	—	—	4,600	300	6.52	39,600	3,600	9.09	1,462,970	108,590	7.42	9 A
10 A	2,078,510	131,190	6.32	1,495,970	79,630	5.32	449,300	28,480	6.34	—	—	—	—	—	—	951,500	71,360	7.50	—	—	—	4,975,280	310,660	6.36	10 A
11 A	289,180	22,150	7.65	2,278,260	138,160	6.06	363,900	27,470	7.55	—	—	—	—	—	—	69,350	5,880	8.47	126,100	7,750	6.15	3,126,790	201,410	6.44	11 A
12 A	2,083,370	122,000	5.85	2,683,790	141,090	5.26	1,157,550	77,190	6.67	—	—	—	—	—	—	516,550	36,490	7.06	98,100	4,500	4.59	6,539,360	381,270	5.83	12 A
13 B	1,321,590	67,850	5.13	2,420,050	126,590	5.23	752,000	40,180	5.34	377,240	15,870	4.21	3,700	200	5.32	129,800	7,600	5.86	9,980	1,510	15.13	5,014,360	259,800	5.18	13 B
14 B	816,950	47,210	5.77	321,950	20,220	6.28	5,280	280	5.30	87,290	3,580	4.10	919,730	47,500	5.16	597,670	39,190	6.56	450	70	14.44	2,749,320	158,050	5.75	14 B
15 B	2,188,600	132,830	6.06	1,047,900	57,360	5.47	938,000	59,680	6.36	—	—	—	—	—	—	14,730	900	6.12	—	—	—	4,189,230	250,770	5.99	15 B
16 B	1,463,700	96,990	6.63	1,530,170	79,150	5.17	1,186,330	84,150	7.09	6,060	260	4.21	2,000	100	5.00	608,300	42,030	6.91	20,500	2,880	14.05	4,817,060	305,560	6.34	16 B
17 B	4,490,350	241,910	5.38	3,217,350	182,160	5.66	610,330	44,460	7.28	—	—	—	—	—	—	—	—	—	3,900	610	15.51	8,321,930	469,140	5.64	17 B
18 B	249,320	16,080	6.45	359,500	22,900	6.37	2,249,600	151,500	6.73	—	—	—	2,000	60	3.00	280,280	22,300	7.96	830	70	8.43	3,141,530	212,910	6.78	18 B
19 B	2,220,590	128,070	5.76	8,265,490	457,140	5.53	742,700	52,310	7.04	—	—	—	34,800	2,360	6.78	1,851,190	116,460	6.29	424,000	22,850	5.39	13,538,770	779,190	5.76	19 B
20 C	411,670	24,430	5.93	1,108,380	61,050	5.51	542,160	39,050	7.20	120,070	4,930	4.10	806,300	40,940	5.08	151,910	9,980	6.57	91,600	6,850	7.47	3,232,090	187,230	5.79	20 C
21 C	6,593,810	350,880	5.32	6,281,060	362,080	5.76	3,105,000	230,850	7.43	—	—	—	920	60	5.98	437,600	36,530	8.35	867,310	71,400	8.23	17,285,700	1,051,800	6.08	21 C
22 C	6,391,130	341,300	5.34	3,569,710	191,460	5.36	1,820,840	103,250	5.67	—	—	—	—	—	—	—	—	—	1,980	120	6.06	11,783,660	636,130	5.40	22 C
23 C	2,105,090	146,650	6.96	1,817,900	102,950	5.66	1,911,840	122,460	6.41	—	—	—	807,000	36,750	4.55	141,500	13,780	9.74	193,300	17,320	8.96	6,976,630	439,910	6.31	23 C
24 C	10,971,010	605,760	5.52	4,311,660	234,640	5.44	1,691,240	101,280	5.99	129,070	5,310	4.11	116,160	5,370	4.62	154,140	10,940	7.09	268,800	15,350	5.71	17,642,080	978,650	5.55	24 C
25 C	44,180	3,100	7.01	203,850	10,280	5.04	175,730	11,460	6.52	16,548,620	658,080	3.98	956,230	40,700	4.26	5,400	500	9.26	60,130	6,830	11.36	17,994,140	730,950	4.06	25 C
26 C	7,218,520	463,320	6.42	7,522,900	422,430	5.62	1,890,000	113,250	6.00	—	—	—	—	—	—	—	—	—	—	—	—	16,631,420	999,000	6.01	26 C
27 C	6,055,300	345,020	5.69	7,957,260	401,990	5.05	1,849,760	119,410	6.46	—	—	—	373,940	16,380	4.38	2,324,830	129,700	5.58	679,200	48,140	7.09	19,240,290	1,060,640	5.51	27 C
28 C	3,504,030	235,170	6.71	3,942,240	208,370	5.29	1,703,700	102,400	6.01	50,190	2,060	4.11	4,260	200	4.58	50,200	7,820	15.58	6,940	700	10.09	9,261,560	556,720	6.01	28 C
29 C	8,382,100	482,790	5.75	7,027,930	394,510	5.61	5,854,700	362,250	6.18	—	—	—	77,840	3,630	4.66	1,183,240	79,050	6.68	6,660	480	7.21	22,532,470	1,322,710	5.87	29 C
30 C	10,570,130	628,070	5.94	20,457,170	1,209,780	5.91	12,653,600	855,550	6.76	202,000	8,500	4.21	700,000	35,000	5.00	2,909,900	166,930	5.74	675,000	49,820	7.38	48,167,800	2,953,650	6.13	30 C
Group A (1 A-12 A)	11,970,960	741,150	6.19	14,477,540	802,540	5.54	4,834,510	318,400	6.59	236,610	9,960	4.21	219,680	13,870	6.31	2,433,550	178,960	7.35	761,240	55,690	7.32	34,934,090	2,120,520	6.07	Group A (1 A-12 A)
Group B (13 B-19 B)	12,751,100	730,940	5.73	17,162,410	945,520	5.51	6,484,240	432,560	6.67	470,590	19,710	4.19	962,230	50,220	5.22	3,481,970	228,480	6.56	459,660	27,990	6.09	41,772,200	2,435,420	5.83	Group B (13 B-19 B)
Group C (20 C-30 C)	62,246,970	3,626,490	5.83	64,200,060	3,599,540	5.60	33,198,570	2,161,210	6.51	17,049,950	678,880	3.98	3,842,650	179,030	4.66	7,358,720	455,230	6.19	2,850,920	217,010	7.61	190,747,840	10,917,390	5.73	Group C (20 C-30 C)
Composite (A, B & C)	86,969,030	5,098,580	5.86	95,840,010	5,347,600	5.58	44,517,320	2,912,170	6.54	17,757,150	708,550	3.99	5,024,560	243,120	4.84	13,274,240	862,670	6.50	4,071,820	300,690	7.38	267,454,130	15,473,380	5.79	Composite (A, B & C)

Railroad Bonds	5.86%
Public Utility Bonds	5.58
Industrial Bonds	6.54
U. S. Government Bonds	3.99
U. S. Municipal Bonds	4.84
Foreign Bonds	6.50
Real Estate Bonds	7.38
Composite Average	5.79%

The yields from the last four fields, in which the combined investments amount to only 15% of the composite bond account, require no comment other than mention of the reflection of superlative security and marketability in the low yield of United States governments; tax exemption in the low return from municipals; and doubt or even danger in the large incomes promised by foreign obligations and real estate issues.

In the three largest fields, the average quality and income return of bonds compare as follows:

PER CENT OF COMPOSITE BOND ACCOUNT	FIELD	PROPORTION GRADES I AND II	INCOME RETURN ON MARKET VALUE
32.5%	Railroad	77.7%	5.86%
35.8	Public Utility	60.6	5.58
16.6	Industrial	44.4	6.54

These figures indicate that the high yield from industrial bonds corresponds closely to the degree of risk implied by their grading, but shows a marked deviation from this postulate in the contrast between rails and utilities. This, however, is explainable on two bases. First, railroad bonds had prior to the date of valuation suffered declines in market value much more severe than utility issues, thus showing higher yields for comparable intrinsic quality. Second, public utility *holding* company issues not entitled to a high grading commanded, up to that date, prices in many cases comparatively high, and therefore showed a low apparent yield. In this respect it appears that

market values exhibited one of their occasional sharp deviations from intrinsic quality, which would prove to have been an accurate forecast of future conditions only if the major railroad systems prove unable to avoid receiverships and reorganizations.

Among the groups, the smaller bond accounts in Group A show distinctly higher than average yields from railroad, municipal, and foreign bonds, indicating poor selection in these fields. Group B shows a comparatively low yield from its small proportion of real estate bonds, implying either that these institutions may have avoided some of the more dangerous types or that a considerable number had defaulted.

Income and Current Return on Preferred Stocks. Productivity of the preferred stocks of each institution and group is set forth in Table X. The composite current return on market value is 7.40%, with remarkably little variation between the three groups. Individual portfolios show much wider variations in yield on preferred stocks than on bonds. Bond yields of all but two were between 5.18% and 7.42%, while the preferred stock yields range from 5.76% to 8.83%, without the inclusion of a very small holder at 4.44% and one of moderate size at 10.40%.

Relationship of quality and yield is much less definite than among bonds, but nevertheless traceable. The ten funds used on page 106, with highest proportions of preferreds in Grades I and II show an average income return of 6.83%, while the ten with smallest percentages in the two best grades return an average of 7.60%. Excluding very small holders of preferreds, the ten funds with the lowest yields average 76.5% in Grades I and II, while those with the highest income returns average only 57.8% in the two upper grades.

Exceptions to the correlation between high quality and

INCOME AND CURRENT RETURN ON MARKET VALUE OF PREFERRED

UNIVERSITIES AND COLLEGES	RAILROADS			PUBLIC UTILITIES		
	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN
1 A	\$ 155,960	\$ 11,550	7.40%	\$ 6,120	\$ 430	7.03%
2 A	40,000	2,500	6.25	86,150	6,100	7.08
3 A	59,870	8,370	13.97	336,720	25,680	7.62
4 A	48,280	4,320	8.98	387,370	25,750	6.65
5 A	—	—	—	—	—	—
6 A	373,580	24,820	6.65	599,000	37,440	6.25
7 A	214,050	11,670	5.45	165,950	10,640	6.41
8 A	223,070	12,900	5.78	93,280	5,440	5.83
9 A	42,000	5,600	13.31	407,450	29,340	7.20
10 A	148,000	11,350	7.67	624,300	48,950	7.84
11 A	—	—	—	—	—	—
12 A	50,800	4,600	9.06	177,400	12,600	7.10
13 B	173,510	11,970	6.90	52,660	2,740	5.20
14 B	3,450	480	13.91	10,000	600	6.00
15 B	171,460	17,800	10.38	958,090	65,730	6.86
16 B	219,210	23,980	10.94	39,130	1,520	3.87
17 B	98,960	8,400	8.49	3,850,810	279,520	7.26
18 B	2,700	450	16.67	30,220	1,960	6.48
19 B	36,050	3,220	8.93	418,100	29,200	6.98
20 C	9,900	1,350	13.64	—	—	—
21 C	—	—	—	27,640	1,600	5.79
22 C	343,900	29,380	8.54	1,221,130	79,500	6.51
23 C	106,000	12,150	11.46	674,850	47,850	7.09
24 C	28,040	2,320	8.27	177,570	10,910	6.14
25 C	—	—	—	—	—	—
26 C	60,660	8,670	14.28	1,259,450	87,970	6.99
27 C	302,260	24,500	8.10	475,900	28,930	6.08
28 C	534,000	45,000	8.43	344,400	19,880	5.77
29 C	1,233,690	113,860	9.23	5,334,570	379,560	7.12
30 C	598,360	42,110	7.04	1,724,690	118,100	6.85
Group A (1 A-12 A)	1,355,610	97,680	7.21	2,883,740	202,370	7.02
Group B (13 B-19 B)	705,340	66,300	9.40	5,359,010	381,270	7.11
Group C (20 C-30 C)	3,216,810	279,340	8.68	11,240,200	774,300	6.89
Composite (A, B & C)	5,277,760	443,320	8.40	19,482,950	1,357,940	6.97

TABLE X

STOCKS DISTRIBUTED ACCORDING TO THE FIELD OF INVESTMENT

INDUSTRIALS			TOTALS			UNIVERSITIES AND COLLEGES
AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	
\$ —	\$ —	— %	\$ 162,080	\$ 11,980	7.39%	1 A
—	—	—	126,150	8,600	6.82	2 A
89,740	8,900	9.91	486,330	42,950	8.83	3 A
398,250	33,610	8.44	833,900	63,680	7.64	4 A
—	—	—	—	—	—	5 A
203,050	13,100	6.45	1,175,630	75,360	6.41	6 A
15,360	1,060	6.88	395,360	23,370	5.91	7 A
39,830	2,430	6.10	356,180	20,770	5.83	8 A
399,950	37,540	9.38	849,400	72,480	8.53	9 A
166,040	12,890	7.76	938,340	73,190	7.80	10 A
5,070	225	4.43	5,070	225	4.44	11 A
27,100	3,560	13.14	255,300	20,760	8.13	12 A
100,020	4,080	4.08	326,190	18,790	5.76	13 B
480	—	—	13,930	1,080	7.75	14 B
506,340	32,150	6.35	1,635,890	115,680	7.07	15 B
233,830	25,670	10.98	492,170	51,170	10.40	16 B
512,530	53,410	10.42	4,462,300	341,330	7.65	17 B
3,503,760	261,460	7.46	3,536,680	263,870	7.46	18 B
107,130	8,080	7.54	561,280	40,500	7.22	19 B
41,640	2,220	5.33	51,540	3,570	6.93	20 C
—	—	—	27,640	1,600	5.79	21 C
1,008,300	62,300	6.20	2,573,330	171,380	6.66	22 C
1,882,080	137,240	7.29	2,662,930	197,240	7.41	23 C
158,750	7,860	4.95	364,360	21,090	5.79	24 C
—	—	—	—	—	—	25 C
134,400	12,230	9.09	1,454,510	108,870	7.48	26 C
473,420	34,150	7.21	1,251,580	87,580	7.00	27 C
624,580	42,500	6.80	1,502,980	107,380	7.14	28 C
4,090,440	310,210	7.58	10,658,700	803,630	7.54	29 C
2,330,190	184,120	7.90	4,653,240	344,330	7.40	30 C
1,344,390	113,315	8.43	5,583,740	413,365	7.40	Group A (1 A-12 A)
4,964,090	384,850	7.75	11,023,440	832,420	7.55	Group B (13 B-19 B)
10,743,800	792,830	7.38	25,200,810	1,846,470	7.33	Group C (20 C-30 C)
17,052,280	1,290,995	7.57	41,812,990	3,092,255	7.40	Composite (A, B & C)

low yield among individual institutions are more marked here than among bonds. School 18B, with the highest percentage in Grades I and II, or 98.9%, shows an average yield of 7.46%, compared with the composite 7.40%; 28C with 95.3% "Good" or above shows a return of 7.14%. Exceptionally poor exhibits are presented by 24C, with a return of only 5.79% on a list only 60.4% of which is in the two upper grades; 7A with a 5.91% return and only 53.6% in these grades; and 17B, which despite the lowest quality of all—it has only 32.9% in the two upper grades—shows a return of 7.65%, only one-fourth of one per cent above the composite.

Among fields of investment Table X shows the Composite Fund to return 8.40% on its railroad preferreds, 6.97% on its public utility preferreds, and 7.57% on its industrial preferreds. Group A shows a yield much below average on its rail preferreds and much above on its industrial. Group B has a very high return on its railroad preferreds. The high yield of the rail preferreds in the Composite Fund clearly forecasts the dividend casualties of 1932.

INCOME AND CURRENT RETURN ON COMMON STOCKS

Figures for income and current return on market value of common stocks distributed according to fields of investment, as set forth in Table XI, are the most deceptive of all, as they depend not only on rapidly fluctuating market prices, but also upon inconstant rates of dividend payment. The Composite Fund, on the basis of the prices and dividends prevailing late in 1931, showed an aggregate current return of 7.24%. Group A showed 7.89%; Group B, 4.44%; and Group C, 7.24%. The low yield on the common stocks in Group B is due to institution 18B, which holds large amounts of non-dividend paying stock,

and shows an income of only \$23,980 on a then market value of over \$3,000,000, or 0.78%. Without this fund, Group B would show a return of 7.25%, and the Composite Fund, 7.65%.

Returns on the common stocks of individual institutions are greatly dissimilar, ranging from the one noted above at 0.78% to 14.13%, with two others at 5% or under, and three others at 9% or over.

No useful purpose would be served by attempting to indicate any broad relationship between quality and yield in the common stock field, because the momentary yield offered by a common stock at a given price is a matter of considerably less importance in determining its attractiveness than are its long-term prospects. The fund with the highest percentage of its commons in Grade I shows a return of 9.58%, while the one with the lowest percentage in Grade I is the one with a yield of only 0.78%, thus reversing the order observed in bonds and preferreds.

Respecting fields of investment, Table XI shows the return on railroad common stocks to have been 11.21%, thus forecasting the omission of many dividends early in 1932; that on public utility common stocks to have been 6.85%; that on industrial equities 6.91%, which would be 1% higher without the large non-dividend holdings of 18B; and that on bank and insurance stocks 5.56%, which customarily return less than other classes of equities. Greatest variations in yield are shown by Group B, with 13.54% on its rails, and only 2.29% on its industrials, which, however, would be 6.57% without 18B.

Naturally institution 18B with a yield of only 0.17% on the 29% of its security holdings, which consist of industrial common stocks, appears in a rather unfavorable light. To pass judgment fairly on it, however, would be impossible without a detailed discussion of the stocks in-

TABLE XI

INCOME AND CURRENT RETURN ON MARKET VALUE OF COMMON STOCKS DISTRIBUTED ACCORDING TO THE FIELD OF INVESTMENT

UNIVERSITIES AND COLLEGES	RAILROADS			PUBLIC UTILITIES			INDUSTRIALS			BANK AND INSURANCE			TOTALS			UNIVERSITIES AND COLLEGES
	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	AMOUNT	INCOME	CURRENT RETURN	
1 A	\$ 113,560	\$ 12,770	11.24%	\$ 4,320	\$ 320	7.48%	\$ 1,560	\$ 85	5.45%	\$ 211,200	\$ 11,200	5.30%	\$ 330,640	\$ 24,375	7.37%	1 A
2 A	87,610	7,610	8.69	28,140	2,060	7.32	46,000	4,230	9.20	107,450	5,260	4.89	269,200	19,160	7.12	2 A
3 A	45,400	5,490	12.09	86,200	5,060	5.87	18,060	1,630	9.03	10,370	500	4.80	160,030	12,680	7.92	3 A
4 A	50,520	6,290	12.45	60,420	3,620	5.99	247,500	21,340	8.62	—	—	—	358,440	31,250	8.72	4 A
5 A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5 A
6 A	202,330	29,830	14.74	295,750	19,200	7.49	245,080	17,660	7.21	171,020	7,560	4.41	914,180	74,250	8.12	6 A
7 A	23,200	1,980	8.53	—	—	—	95,550	1,770	1.85	—	—	—	118,750	3,750	3.16	7 A
8 A	63,250	7,140	11.29	134,080	8,060	6.01	148,790	10,070	6.77	22,690	1,910	8.41	368,810	27,180	7.37	8 A
9 A	130	15	11.54	—	—	—	408,080	35,870	8.79	19,000	1,650	8.67	427,210	37,535	8.79	9 A
10 A	135,200	13,000	9.62	—	—	—	1,400	80	5.71	—	—	—	136,600	13,080	9.58	10 A
11 A	—	—	—	5,350	320	6.02	14,570	930	6.38	10,730	440	4.13	30,650	1,690	5.51	11 A
12 A	67,790	9,630	14.20	75,970	4,940	6.51	168,560	14,770	8.76	345,950	23,360	6.75	658,270	52,700	8.01	12 A
13 B	39,810	5,780	14.51	351,910	21,870	6.21	239,190	15,640	6.54	81,080	4,590	5.66	711,990	47,880	6.73	13 B
14 B	230	45	19.57	—	—	—	3,000	—	—	15,480	1,160	7.50	18,710	1,205	6.44	14 B
15 B	102,360	10,590	10.35	80,130	4,510	5.63	176,120	13,610	7.73	—	—	—	358,610	28,710	8.01	15 B
16 B	146,360	23,090	15.78	92,500	4,500	4.86	704,030	38,690	5.50	1,292,000	80,140	6.20	2,234,890	146,420	6.55	16 B
17 B	88,300	12,120	13.72	227,840	20,790	9.12	208,330	16,550	7.94	18,910	1,210	6.40	543,380	50,670	9.32	17 B
18 B	72,190	7,810	10.82	105,680	8,590	8.13	2,852,020	4,880	.17	50,630	2,700	5.32	3,080,520	23,980	.78	18 B
19 B	38,000	6,530	17.17	9,700	630	6.49	70,550	7,630	10.82	2,400	100	4.00	120,650	14,890	12.34	19 B
20 C	3,640	690	18.82	647,170	35,770	5.53	800,190	71,150	8.89	1,219,620	93,740	7.74	2,670,620	201,350	7.54	20 C
21 C	—	—	—	33,510	2,330	6.96	10,880	550	5.06	—	—	—	44,390	2,880	6.49	21 C
22 C	244,380	28,900	11.83	306,110	18,140	5.92	299,530	20,730	6.92	160,000	8,950	5.59	1,010,020	76,720	7.60	22 C
23 C	855,710	90,800	10.61	602,280	36,680	6.12	1,135,710	83,870	7.38	547,420	25,820	4.71	3,141,120	237,170	7.55	23 C
24 C	168,450	20,330	12.07	355,130	31,560	8.89	140,860	8,690	6.17	135,360	7,860	5.80	799,800	68,440	8.56	24 C
25 C	—	—	—	—	—	—	—	—	—	10,000	500	5.00	10,000	500	5.00	25 C
26 C	733,130	73,380	10.01	1,008,800	79,380	7.87	3,986,090	290,730	7.29	1,631,750	74,470	4.56	7,359,770	517,960	7.04	26 C
27 C	741,120	65,210	11.36	459,140	33,640	7.33	4,044,050	300,270	7.42	421,700	22,210	5.26	5,666,010	421,330	7.44	27 C
28 C	382,320	54,130	14.16	—	—	—	49,370	6,880	13.94	—	—	—	431,690	61,010	14.13	28 C
29 C	1,235,630	142,160	11.51	2,028,500	122,350	6.03	4,564,020	357,280	7.83	1,261,940	61,040	4.83	9,090,090	682,830	7.51	29 C
30 C	1,699,390	187,390	11.03	3,325,160	242,590	7.30	5,530,320	465,770	8.42	1,951,460	102,760	5.26	12,506,330	998,510	7.98	30 C
Group A (1A-12A)	788,990	93,755	11.88	690,230	43,580	6.31	1,395,150	108,435	7.77	898,410	51,880	5.77	3,772,780	297,650	7.89	Group A (1A-12A)
Group B (13B-19B)	487,250	65,965	13.54	867,760	60,890	7.02	4,253,240	97,000	2.29	1,460,500	89,900	5.16	7,068,750	313,755	4.44	Group B (13B-19B)
Group C (20C-30C)	6,063,770	662,990	10.93	8,765,800	602,440	6.87	20,561,020	1,605,920	7.81	7,339,250	397,350	5.41	42,729,840	3,268,700	7.65	Group C (20C-30C)
Composite (A, B & C)	7,340,010	822,710	11.21	10,323,790	706,910	6.85	26,209,410	1,811,355	6.91	9,698,160	539,130	5.56	53,571,370	3,880,105	7.24	Composite (A, B & C)

volved and the provisions under which they are held, which would obviously be out of place in this analysis. With this exception, it would appear that most of the universities and colleges which made any considerable use of common stocks were receiving from them fair average results as to income.

CURRENT RETURN ON MARKET VALUE OF ALL SECURITIES

The accompanying Chart 17 portrays the combined rate of return, as was set forth in Table VIII, on all bonds and stocks for each university and college—excepting only 5A, as the 11.20% return from its negligible investment in securities would distort the picture. Aside from this institution and 25C, which has so many government bonds, the combined yields vary from 5.13% to 7.98%. The former is 18B, whose low-yielding common stocks are offset by extraordinarily high returns from its bonds, which, however, are lower in average quality than any other fund except 5A. Fund 9A, which returns 7.98%, shows yields well above average on all three classes of securities, but shows conspicuously low quality in all except common stocks.

The combined return of the groups, if 18B common stocks be excluded, would have shown the usual gradation according to size from Group A at 6.39%, B at 6.25%, to C at 6.20%. The combined current return of 6.19% on the Composite Fund was probably not greatly out of line with the conditions prevailing when the securities were valued in November, 1931. The Fund would obviously have been better protected against subsequent happenings if a large part had been transferred to lower-yielding, more conservative securities.

Actual shrinkage in the dollar income received in 1932 on the securities held in the Composite Fund has been substantial, as compared with that of the year 1931. This has

been particularly severe in common stocks, railroad preferred stocks, bonds and preferred stocks of holding and investment companies, real estate bonds, and many foreign obligations. No class or field of investment has been unscathed, however, save only United States government bonds. The effects of lowered income on the budgets of almost all universities and colleges have been a matter of frequent comment in the public press. Unfortunately the threat of still further and more extensive defaults is still present as this is written.

Many institutions have been able, through timely action in moving away from threatened securities, to minimize the contraction in the income from their invested funds. Concentration in bonds of high quality before the beginning of the depression was the most efficacious preventive of losses, but shifts to safer securities made much later have shown large advantages. Examples of this have been the elimination by many institutions of all railroad bonds graded below I and II late in 1930, and of public utility holding company securities in 1931.

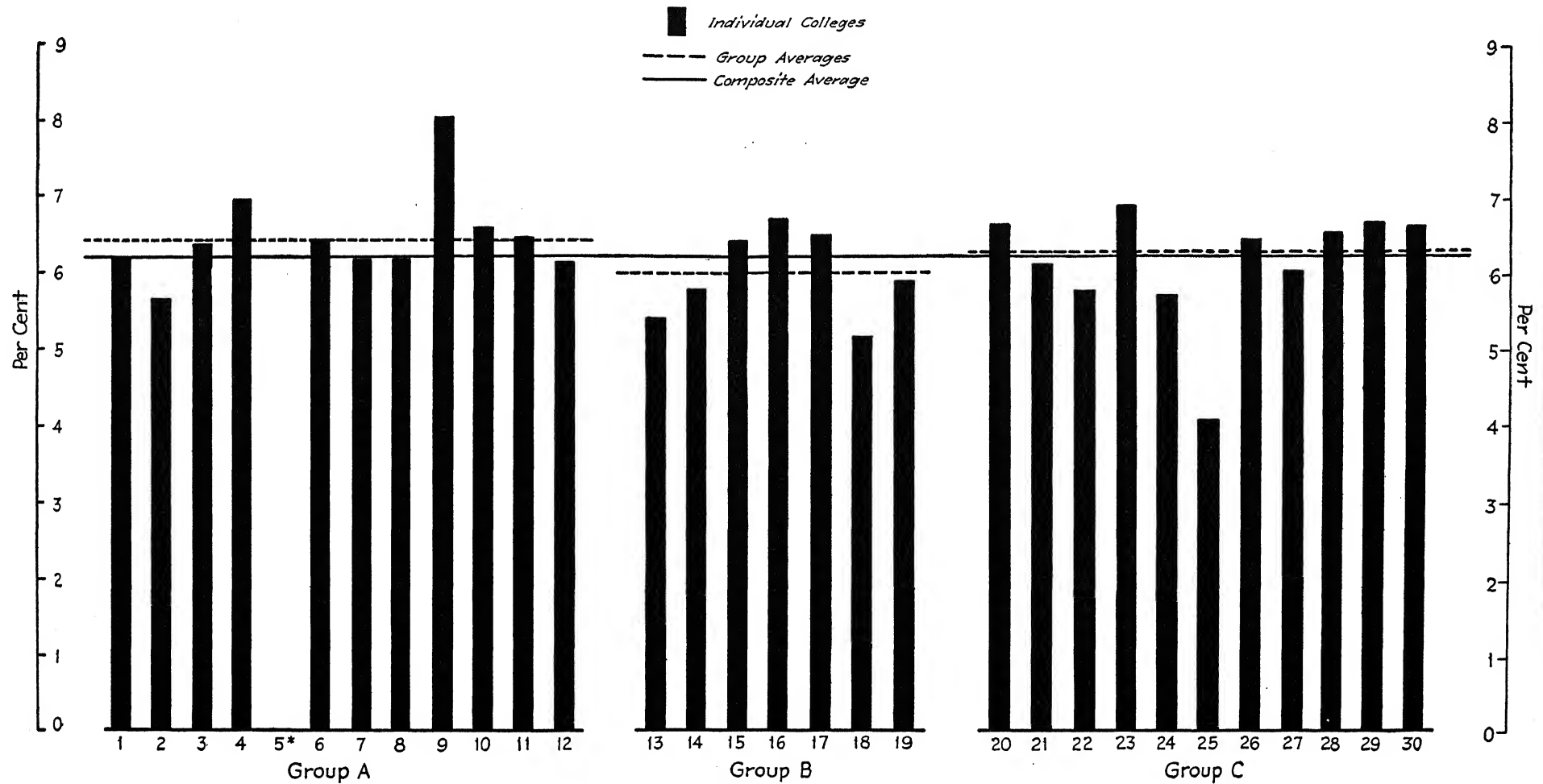
INCREASING THE PRODUCTIVITY OF ENDOWMENTS

University and college Trustees, aiming to increase the productivity of their endowment so as to increase their benefactions, may properly prescribe in their investment policies the limits of the risks to be incurred. For any college endowment, however large or whatever its content, increased productivity is attainable from the following sources:

1. *Higher Rates of Interest and Dividends*, which imply the acceptance of correspondingly higher risks—unfortunately most often sought after by those buyers of bonds and preferred stocks who are least

Current Return on Market Value of Bonds and Stocks of Individual Colleges

Compared with the Groups and Composite Fund



*5A omitted, as total of bonds and stocks comprise negligible percentage of total fund and yields an abnormal current return.

competent to measure the accompanying hazards. Holders of common shares, of course, may enjoy chance benefits from dividends not fully anticipated.

2. *Appreciation*, or growth in the market price of securities, obtained through the ripening up of unseasoned issues, or from progressive improvement of those already favorably regarded. To count on such gains is, of course, an essentially speculative proceeding.
3. *Profit from Replacement* of one security by another of substantially the same quality when relatively the former is overpriced and the latter is underpriced in the market. The discrepancies in such cases arise from temporary maladjustments of the supply of and the demand for these specific issues. But success in making such replacements is not ordinarily attainable save under the expert guidance of those very close to the actual markets.
4. *Enhancement in Price* of bonds or preferred stocks promising income at fixed rates for long periods. This results from a prolonged downward trend of interest rates, following a period of peculiarly rapid accumulation of capital.
5. *Rise in Value of Income* of bonds contracting for future payment of dollars. Such a condition results from a material decline in the level of prices, whether or not due to a change in the monetary standard.
6. *Gains from Wide Swings* in the business world, from depression to prosperity. Cyclical variations in the conditions of general business are accompanied by like fluctuations of public sentiment between the extremes of distrust and confidence.

The first two of these expedients, most frequently employed by the average investor, appear simple. The third is less popular because the gain in any single operation is

usually so small as to make little appeal to those seeking large profits, although a relatively small number of well informed investors value greatly this means of reaping profits without appreciable risk. In this field there are, of course, excellent opportunities for the successful exercise of the skill of specialists who are masters of adequate information; but here lie innumerable chances of losses for those inexperienced investors who lack the information requisite for making wise choices.

The last three sources of profit, originating in economic conditions quite outside the security market and affecting all securities of a given kind, irrespective of the individual merits of specific issues, are at times potentially of supreme importance to all Trustees, though they are too often ignored by all save a comparatively small number of advanced students of values. These three expedients may be used most effectively by Trustees in developing the productivity of any endowment so nearly permanent as to encourage long-range planning.

The productivity of the funds included in this study depends mainly upon the ways in which they are handled. With sufficient knowledge of money markets, of individual securities, of industrial developments, of underlying economic forces, it should be possible for the Trustees to make of each endowment fund an efficient instrument for securing regular and increasing income without incurring serious risk. In contrast with the passive policy of many Trustees, who are content to hold the position of preferred creditors, there may be equal virtue and far greater efficiency in actively following a constructive policy directed toward making a fund highly productive.

Aggressive action, planned to increase the productivity of an endowment fund is not inconsistent with the moral responsibilities of the most scrupulous Trustees. Indeed,

such actions as are herein suggested, either for protection or profit, may be amply justified by the opportunities they afford for extending the beneficence of the funds they administer.

CHAPTER IX

BLUE PRINTING THE MANAGEMENT OF ENDOWMENTS

SUCCESSIVE analyses of the investments of thirty universities and colleges, in respect to Class, Field, Maturity, Diversification, Quality, and Income have emphasized throughout not only the manifest desirability but the practical necessity of shaping the management of endowment funds by an investment policy sufficiently flexible to conform to constantly changing economic conditions. One has only to recall the happenings of the past three years and their effects on "permanent" funds to appreciate that nothing is so permanent as impermanency, and to acknowledge the importance of giving flexibility to every investment policy through a definite decision as to:

Desirable Apportionment of investments according to Class, Field, Maturity, and Average Size;

Standard of Quality for each class of investment, and a practical balance between the degree of risk that will be accepted in seeking income;

Willingness to Shift Holdings, under certain conditions, to gain the advantage of long-term swings in money rates, to avoid losses, and to take trading profits.

Practical use of an investment policy embodying the foregoing essential considerations calls for:

Periodic Revaluation of Holdings from the point of view of intrinsic quality, market position, and adaptability to desired aims;

Constant Reappraisal of general economic conditions as they affect each industry and the enterprises and securities within the industries in which may be had a present or potential interest;

Timely Action on the part of one fully authorized to seize transient opportunities to improve the investment position of the fund.

The whole problem of original investment and subsequent replacement, which is complicated by the amazing number of issues from which a choice must be made, may be greatly simplified by a policy that delimits the acceptable classes, fields, and standards of investment. The need for such a definite policy, as a guide to the selection of securities, is strikingly emphasized by the realization that the appended list of collegiate holdings was chosen from a bewildering number of old issues, and from an astonishing number of new issues—ranging in aggregate par value during the preceding ten years from five billion to eleven and a half billion dollars annually—representing every class and field of investment. Consequently the usefulness of a carefully conceived investment policy—an indispensable blue print, as it were, by which permanent merit can be inbuilt into an endowment fund.

Those Trustees who are solicitous about the permanency of their funds and the stability of their income may find considerable advantage in examining carefully the aforementioned list, presented at the end of this chapter, of each bond and stock issue which is found among the holdings of five or more of the thirty institutions included in this study, together with the number of times each appears. In this enumeration, various series of bonds and preferred stocks having identical security and comparable maturities have been grouped together. The amounts of the commitments purposely have not been stated but are, in the aggregate,

substantial. In fact the average par value of each security approximates half a million, while many issues are represented by blocks of one million, two million, and over.

Comment on these securities individually would be neither feasible nor within the proper scope of this study. Their enumeration is presented not in any sense as a guide list of desirable securities but as an indicator pure and simple of collegiate investment trends. Trustees comparing their lists with this one, and noting wherein their own and these collegiate holdings deviate in both directions from theoretically ideal investment standards, may, it is hoped, be actuated to formulate an investment policy or conform to changing conditions one which may have become obsolete.

Such Trustees might do well to consider carefully the results obtained by those who have, in the railroad field: a wider interest in the less important mileage than in the great systems of the country; a more uniform participation in junior mortgage bonds than in the choicest underlying obligations; a larger investment in comparatively new mortgages than in seasoned issues; and a surprising representation in defaulted bonds and non-dividend paying stocks of railroads whose difficulties were long ago anticipated by those alert to replace securities in which some sign of deterioration appears. It will be found, by those who carry their study beyond the list itself, that the average market price of the five most widely held railroad bonds ranged, during the middle of 1932, between approximately thirty and forty cents on the dollar.

And in like manner Trustees might determine, by studying the appended list of representative securities, whether or not in the public utility field the advantage obtained by so general a commitment in the deservedly popular bonds of the American Telephone & Telegraph Company and

its subsidiaries is not largely offset by the extensive investment in the debenture bonds of holding companies and in small and unfavorably situated operating companies. Some underlying mortgage bonds of outstanding public utility operating systems will be found in substantial amounts but these appear principally on the lists of the more sophisticated buyers whose investment policies are known to be sound.

And so on, those Trustees who study the list of securities held by five or more institutions, in order that their own policies may be framed to avoid the losses embalmed therein and to claim the assured incomes perpetuated thereby, will consider what possible advantage is to be found by having in the industrial field a preponderance of plain debenture issues of a more or less speculative flavor as against a sparing interest in issues of the prime quality; and what profit in having in the governmental field a greater number of foreign government issues of high promised yield than in a backlog of United States government bonds.

These considerations of investment versus speculation, of assured safety versus anticipated appreciation of principal, which must enter into any investment policy, are so clearly represented by the securities hereinafter listed that a more than casual examination of them is commended to the Trustees of all American endowments.

Many of the various factors which enter into a comprehensive policy of investment management of productive funds are summarized in Table XII, which is a composite picture, expressed in percentages, of the endowment of each college, of each collegiate group, and of the thirty universities and colleges combined. Even a hasty survey of the investment experience of these institutions of higher learning, as pictured by this table, indicates that the most uniform factor is utter lack of uniformity. The experiences of only

a very few institutions correspond in any broad way with either the practices of the Composite Fund or the theoretically ideal distributions which have been advanced in this study.

Variations in the Distribution According to Class of Investment are particularly noteworthy, as on one extreme an institution has 81.6% in bonds while another at the other extreme has unfortunately only 0.7%. In like manner one fund has 28% in preferred stocks though some have none at all; another has 24.4% in common stocks where others have none; one fund is conspicuous in having 93.6% in mortgages though two do not have any; and another is outstanding with 54.5% in real property as several have no investment in this medium.

A similar lack of uniformity of practice shows in the Distribution According to The Field of Investment where one has as high as 47% in rails as against several with less than 2%; one tops the list with 52.4% in utilities while two have less than 1%; another concentrates 43% in industrials whereas three have only a fractional percentage; an exceptional institution has as much as 58.4% in United States governments whereas most of the funds have none; a single tax exempt fund has 10.2% low-yielding municipals though all but four others have a negligible percentage or none; one has as much as 14.3% in foreign bonds while several have none; one fund actually has 94.3% in the field of real estate as against one with only 1.7%; and yet another has 10.9% in the bank and insurance field though many have none.

The average investment in bonds and stocks varies in per cent from 5.3% to 0.2% of the security total, and varies in dollars from \$243,000 to under \$2,000.

One college appears to be receiving a current return, on the market value of a small amount of speculative securities, of 11.20%; an over-conservative fund yields only 4.06%.

TABLE XII

COMPOSITE PICTURE OF EACH UNIVERSITY OR COLLEGE FUND EXPRESSED IN PERCENTAGES

UNIVERSITIES AND COLLEGES	CLASS OF INVESTMENT						FIELD OF INVESTMENT									AVERAGE INVESTMENT	CURRENT RETURN	BOND MATURITIES				QUALITY OF BONDS		UNIVERSITIES AND COLLEGES
	BONDS	PREFERRED STOCKS	COMMON STOCKS	MORT- GAGES	REAL PROPERTY	MISC.	RAIL- ROADS	PUBLIC UTILITIES	INDUS- TRIALS	U. S. GOVERNMENTS	U. S. MUNICIPALS	FOREIGN BONDS	REAL ESTATE	BANK & INSURANCE	MISC.	PERCENTAGE OF BONDS & STOCKS	ON BONDS & STOCKS	SHORT (THRU 1935)	MEDIUM (1936-50)	LONG (1950-)	DOUBT- FUL	I, II & III GRADES	IV, V & UNGRADED	
1 A	54.1	3.6	7.5	27.5	3.6	3.7	23.2	26.2	2.5	5.0	.4	3.0	31.2	4.8	3.7	.5	6.16	4.2	44.4	51.4	—	95.3	4.7	1 A
2 A	79.0	2.8	6.1	5.4	3.9	2.8	37.2	38.5	5.6	—	—	—	13.5	2.4	2.8	.7	5.61	2.5	38.1	59.4	—	93.2	6.8	2 A
3 A	75.1	11.5	3.8	3.0	—	6.6	35.7	45.1	7.5	—	—	1.5	3.4	.2	6.6	.6	6.34	6.9	26.6	66.5	—	93.1	6.9	3 A
4 A	58.3	20.1	8.6	10.8	.7	1.5	16.2	28.3	35.2	—	—	2.5	16.3	—	1.5	.6	6.93	7.9	43.3	48.8	—	86.0	14.0	4 A
5 A	.7	—	—	93.6	.7	5.0	—	.1	.4	—	.1	.1	94.3	—	5.0	5.3	11.20	9.1	16.6	67.1	7.2	33.4	66.6	5 A
6 A	50.3	23.4	18.2	1.0	6.7	.4	31.1	38.9	18.5	—	—	—	7.7	3.4	.4	.7	6.37	3.8	39.5	56.7	—	96.4	3.6	6 A
7 A	16.1	10.9	3.3	35.4	32.6	1.7	7.9	4.6	6.8	.4	5.1	3.1	70.4	—	1.7	1.5	6.15	38.5	43.5	18.0	—	73.8	26.2	7 A
8 A	66.5	5.7	5.8	4.0	17.0	1.0	29.9	30.3	9.8	—	.1	7.5	21.0	.4	1.0	.4	6.16	5.0	43.6	51.4	—	94.2	5.8	8 A
9 A	30.7	17.9	9.0	18.9	23.1	.4	14.2	15.5	26.6	—	—	.1	42.8	.4	.4	1.4	7.98	5.2	61.4	33.4	—	97.3	2.7	9 A
10 A	74.8	14.1	2.1	8.3	—	.7	35.5	31.9	9.3	—	—	14.3	8.3	—	.7	.5	6.56	1.1	36.2	62.7	—	95.5	4.5	10 A
11 A	49.8	—	.5	10.6	35.3	3.8	4.6	36.4	6.1	—	—	1.1	47.8	.2	3.8	.4	6.43	2.5	42.7	54.8	—	80.7	19.3	11 A
12 A	79.8	3.1	8.0	.5	—	8.6	26.9	35.8	16.5	—	—	6.3	1.7	4.2	8.6	.6	6.10	15.8	32.9	51.2	—	90.4	9.6	12 A
13 B	55.3	3.6	7.8	22.7	6.7	3.9	16.9	31.1	12.0	4.2	.1	1.4	29.5	.9	3.9	.5	5.39	7.2	46.8	45.8	—	93.2	6.8	13 B
14 B	30.7	.1	.2	—	15.6	53.4	9.1	3.7	.1	1.0	10.2	6.7	15.6	.2	53.4	.6	5.76	14.1	34.0	51.8	—	91.3	8.7	14 B
15 B	51.9	20.3	4.4	22.0	—	1.4	30.5	25.8	20.1	—	—	.2	22.0	—	1.4	.4	6.39	7.3	39.2	53.4	.1	95.8	4.2	15 B
16 B	40.9	4.2	18.9	6.1	29.9	—	15.5	14.1	18.0	.1	—	5.2	36.2	10.9	—	.6	6.67	1.8	33.0	65.3	—	92.4	7.6	16 B
17 B	52.3	28.0	3.4	14.4	1.9	—	29.4	45.8	8.4	—	—	—	16.3	.1	—	.3	6.46	8.8	32.3	58.2	.6	92.3	7.7	17 B
18 B	16.0	18.0	15.6	48.0	1.9	.5	1.6	2.5	43.8	—	—	1.4	49.9	.3	.5	.8	5.13	9.7	54.1	30.3	5.8	89.7	10.3	18 B
19 B	81.6	3.4	.7	5.6	2.7	6.0	13.8	52.4	5.6	—	.2	11.2	10.8	—	6.0	.4	5.87	1.3	21.3	77.2	.3	88.9	11.1	19 B
20 C	12.7	.2	10.5	16.1	54.5	6.0	1.7	6.9	5.4	.5	3.2	.6	70.9	4.8	6.0	.4	6.59	17.0	46.2	36.4	.4	89.6	10.4	20 C
21 C	69.1	.1	.2	9.3	14.2	7.1	26.3	25.3	12.5	—	—	1.7	27.0	—	7.2	.5	6.09	5.8	38.3	55.7	—	84.0	16.0	21 C
22 C	65.9	14.4	5.7	6.5	7.5	—	39.1	28.5	17.5	—	—	—	14.0	.9	—	.4	5.75	5.5	37.7	55.2	1.6	98.9	1.1	22 C
23 C	41.2	15.8	18.6	22.0	2.4	—	18.1	18.3	29.1	—	4.8	.8	25.6	3.3	—	.3	6.84	9.6	47.9	33.8	8.7	86.2	13.8	23 C
24 C	74.2	1.5	3.4	17.9	2.7	.3	47.0	20.4	8.4	.5	.5	.6	21.7	.6	.3	.2	5.68	27.8	35.9	35.8	5.4	93.9	6.1	24 C
25 C	63.5	—	—	—	35.9	.6	.2	.7	.6	58.4	3.4	—	36.1	—	.6	1.4	4.06	64.4	33.1	2.4	.1	98.6	1.4	25 C
26 C	55.1	4.8	24.4	11.1	.9	3.7	26.5	32.4	19.9	—	—	—	12.0	5.4	3.8	.4	6.39	1.2	25.7	73.0	—	94.9	5.1	26 C
27 C	62.7	4.1	18.4	2.0	2.0	10.8	23.1	29.0	20.7	—	1.2	7.6	6.2	1.4	10.8	.3	6.00	12.2	39.2	48.4	.2	95.1	4.9	27 C
28 C	26.4	4.3	1.2	39.9	15.5	12.7	12.6	12.2	6.8	.2	—	.2	55.4	—	12.6	.7	6.48	.7	30.9	68.3	—	97.8	2.2	28 C
29 C	35.4	16.7	14.3	15.0	13.3	5.3	17.0	22.6	22.8	—	.1	1.9	28.3	2.0	5.3	.2	6.64	10.7	46.5	42.3	.4	92.9	7.1	29 C
30 C	55.9	5.4	14.4	2.1	14.4	7.8	14.9	29.6	23.8	.2	.8	3.4	17.3	2.3	7.7	.2	6.58	15.5	43.1	41.2	.2	88.8	11.2	30 C
Group A (1 A-12 A)	55.2	8.8	6.0	16.8	10.0	3.2	22.3	28.5	12.0	.4	.3	3.9	28.0	1.4	3.2	.6	6.39	7.1	39.0	53.9	—	91.7	8.3	Group A (1 A-12 A)
Group B (13 B-19 B)	46.4	12.2	7.8	19.1	7.4	7.1	15.5	26.0	17.4	.5	1.1	3.9	27.0	1.6	7.0	.5	5.98	5.7	32.8	60.8	.7	91.4	8.6	Group B (13 B-19 B)
Group C (20 C-30 C)	49.8	6.6	11.1	11.7	14.9	5.9	18.7	22.0	16.8	4.4	1.0	1.9	27.4	1.9	5.9	.4	6.20	15.6	38.9	45.0	.5	92.4	7.6	Group C (20 C-30 C)
Composite (A, B & C)	49.8	7.8	10.0	13.5	13.1	5.8	18.5	23.4	16.4	3.3	.9	2.5	27.4	1.8	5.8	.4	6.19	12.9	37.9	48.7	.5	92.1	7.9	Composite (A, B & C)

As to bond maturities one shows an abnormal concentration of 64.4% in short terms while another has only 0.7% ; one is marked with 61.4% of medium terms as against a minimum of 16.6% ; while one has 77.2% in long terms as compared with the unbelievably low 2.4% at the other extreme.

Respecting quality one institution has 98.9% of its bonds in the three upper grades while another has unfortunately only 33.4%.

Correlative with and more significant than these extreme variations is the apparent fact that no institution's experience corresponds closely, in more than a few of these respects, with either the exhibits of the Composite Fund or the theoretical ideal. These were as follows:

<i>Class of Investment</i>	ACTUAL	IDEAL
Bonds	49 8%	50%
Preferred stocks	7 8	10
Common stocks	10 0	10
Mortgages	13.5	20
Real Property	13 1	5
Miscellaneous	5.8	5
<i>Field of Investment</i>		
Railroad	18 6%	21%
Public Utility	23 4	28
Industrial	16.4	14
United States Government	3 3	3
Municipal	0.9	0
Foreign	2.5	2
Real Estate	27 4	25
Bank and Insurance	1.8	2
Miscellaneous	5.7	5
<i>Average Investment Item</i>	0.4%	Variable
<i>Quality of Bonds</i>		
Grades I and II	66 2%	75%
Grades I, II, and III	92 1	100
Grades IV, V, and Ungraded	7.9	0
<i>Quality of Preferred Stocks</i>		
Grades I and II	68.6%	100%

The general proportions of the Composite Fund seem to be approached in a number of respects by five institutions, 1A, 4A, 13B, 29C, and 30C. Of these it is natural to find the two largest showing this resemblance, in that their distribution has the greatest influence on the composite. The closest parallel seems to be shown by 13B.

The theoretical distribution is closer to the actual proportions of 1A, 13B, and 15B than to any of the other colleges. It is noteworthy that 13B seems to come nearest to the theoretical as well as to the Composite Fund distribution, which would seem to indicate that this institution has a policy most likely to win the confidence of benefactors, large and small.

In practice, no two Boards of Trustees seem to pursue the same methods in handling their funds. In view of the fact that sometimes those who control collegiate investments have inadequate knowledge of essential facts or are influenced by irrational preferences or prejudices, it is likely that in some cases investment operations, which have not been predetermined by an investment policy, may not be guided by pure reason. Even where rational considerations do prevail, the wide divergence in the needs of each university or college together with the countless variations in the conditions under which endowment funds are handled, make each investment problem appear to be practically unique. Consequently, though fundamental rules governing the investment and management of permanent funds change but little, the ideal investment policy for general use has not yet been framed. Not even for any limited class of investors has the perfect program so far appeared. But the formulation of *a* consistent investment policy, adapted to the specific purposes of the endowment, is an indispensable preliminary to the successful building of any permanent fund.

BONDS AND STOCKS HELD BY FIVE OR MORE UNIVERSITIES AND COLLEGES

Listed to Show Number of Holders

BONDS

HELD

BY RAILROAD

- | | |
|----|---|
| 10 | Atchison, Topeka & Santa Fe General 4s, 1995 |
| 9 | Atchison, Topeka & Santa Fe Adjustment 4s, 1995 |
| 5 | Atlantic Coast Line First Consolidated 4s, 1952 |
| 5 | Atlantic Coast Line General Unified 4½s, 1964 |
| 6 | Atlantic Coast Line-Louisville & Nashville Collateral 4s,
1952 |
| 12 | Baltimore & Ohio First 4s and 5s, 1948 |
| 6 | Baltimore & Ohio-Pittsburgh, Lake Erie & West Virginia
Refunding 4s, 1941 |
| 11 | Baltimore & Ohio-Southwestern Division First Extended 5s,
1950 |
| 5 | Baltimore & Ohio Convertible 4½s, 1933 |
| 16 | Baltimore & Ohio Refunding & General "A" 5s, 1995; "C"
6s, 1995 and "D" 5s, 2000 |
| 7 | Baltimore & Ohio Convertible 4½s, 1960 |
| 14 | Boston & Maine First "AC" 5s, 1967 |
| 18 | Canadian National Railways Government Guaranty 4½s,
1957 and 5s, 1969 |
| 8 | Canadian Pacific Railway Equipment & Trust Guaranteed
5s, 1944 |
| 5 | Carolina, Clinchfield & Ohio First & Consolidated 6s, 1952 |
| 6 | Central New England First 4s, 1961 |
| 5 | Central of Georgia Railway Consolidated 5s, 1945 |

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HELD

BY

- 7 Central of Georgia Railway Refunding & General "B" 5½s, and Sinking Fund "C" 5s, 1959
- 5 Central Pacific First Refunding 4s, 1949
- 7 Central Pacific 35-Year Guaranteed 5s, 1960
- 7 Chesapeake & Ohio General 4½s, 1992
- 8 Chesapeake Corporation Convertible Collateral Sinking Fund 5s, 1947
- 5 Chicago & North Western First Refunding "C" 4½s, 2037 (stamped)
- 11 Chicago & North Western Convertible Debenture 4¾s, 1949
- 5 Chicago & Western Indiana Consolidated Guaranteed 4s, 1952
- 7 Chicago & Western Indiana First & Refunding Guaranteed 5½s, 1962
- 6 Chicago, Burlington & Quincy General 4s, 1958
- 6 Chicago, Burlington & Quincy-Illinois Division 3½s, and 4s, 1949
- 9 Chicago, Burlington & Quincy First & Refunding "A" 5s, 1971, and "B" 4½s, 1977
- 8 Chicago, Milwaukee & St. Paul General "A" 4s, "C" & "E" 4½s, "F" 4¾s, 1989
- 13 Chicago, Milwaukee, St. Paul & Pacific Mortgage 5s, 1975
- 7 Chicago, Milwaukee, St. Paul & Pacific Convertible Adjustment 5s, 2000
- 9 Chicago, Rock Island & Pacific First & Refunding 4s, 1934
- 6 Chicago, Rock Island & Pacific Secured 4½s, 1952
- 11 Chicago Union Station Guaranteed First "A" 4½s, "C" 6½s, 1963
- 5 Cleveland Union Terminal First Sinking Fund "A" 5½s, 1972
- 5 Colorado & Southern Refunding & Extended 4½s, 1935
- 11 Denver & Rio Grande Railroad First Consolidated 4s, 1936
- 5 Erie & Jersey First (Assumed) 6s, 1955
- 10 Erie Railroad First Consolidated Prior Lien 4s, 1996

HELD

BY

- 7 Erie Railroad Consolidated General Lien 4s, 1996
- 12 Erie Railroad Refunding & Improvement 5s, 1967 and 5s, 1975
- 11 Florida East Coast First & Refunding 5s, 1974
- 11 Great Northern General "B" 5½s, 1952; "C" 5s, 1973; "D" 4½s, 1976; and "E" 4½s, 1977
- 5 Illinois Central Refunding 4s and 5s, 1955
- 14 Illinois Central & Chicago, St. Louis & New Orleans Joint First & Refunding "A" 5s, 1963; and "B" 4½s, 1963
- 6 Illinois Central (Louisville, New Orleans & Texas) Collateral 4s, 1953
- 8 Kansas City, Fort Scott & Memphis Refunding 4s, 1936
- 5 Kansas City Southern First 3s, 1950
- 5 Kansas City Southern Refunding & Improvement 5s, 1950
- 14 Kansas City Terminal First 4s, 1960
- 5 Lehigh Valley Railway of New York First 4½s, 1940
- 5 Louisville & Nashville Unified 4s, 1940
- 7 Louisville & Nashville First & Refunding "A" 5½s, "B" 5s, "C" 4½s, 2003
- 6 Minneapolis, St. Paul & S.S. Marie First Consolidated 4s, 1938
- 5 Missouri, Kansas & Texas First 4s, 1990
- 11 Missouri-Kansas-Texas Prior Lien "A" 5s, and "B" 4s, 1962
- 10 Missouri Pacific General 4s, 1975
- 20 Missouri Pacific First & Refunding "A" 5s, 1965; "F" 5s, 1977; "G" 5s, 1978, and "H" 5s, 1980
- 7 New Orleans, Texas & Mexico First "A" 5½s, 1954; "B" 5s, 1954; and "C" 5s, 1956
- 13 New York Central Equipment 7s, 1931-37; and 4½s, 1931-37

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HELD

BY

- 7 New York Central Consolidation 4s, 1998
- 12 New York Central & Hudson River Refunding & Improvement "A" 4½s, and "C" 5s, 2013
- 11 New York, Chicago & St. Louis Refunding "A" 5½s, 1974; "B" 5½s, 1975; and "C" 4½s, 1978
- 12 New York, New Haven & Hartford First & Refunding 4½s, 1967, and Debenture 4s, 1955 and 1956
- 11 New York, New Haven & Hartford Sec S.F. Deb. 6s, 1940 and 1948
 - 9 Northern Pacific Prior Lien Sinking Fund 4s, 1997
 - 8 Northern Pacific General Lien Sinking Fund 3s, 2047
- 18 Northern Pacific Refunding & Improvement "B" 6s, and "C" 5s, 2047
- 11 Oregon-Washington Railroad & Navigation First & Refunding 4s, 1961
- 13 Pennsylvania Railroad General 4½s, 1965 and 5s, 1968
 - 5 Pennsylvania Railroad Consolidated Mortgage 4s, 1948; and 4½s, 1960
 - 8 Pere Marquette First 5s, 1956
 - 7 Pittsburgh, Cincinnati, Chicago & St. Louis General "A" 5s, 1970, and "B" 5s, 1975
- 9 Reading Company General & Refunding "A" & "B" 4½s, 1997
- 6 St. Louis, Iron Mountain & Southern-River & Gulf First 4s, 1933
- 16 St. Louis-San Francisco Prior Lien "A" 4s, and "B" 5s, 1950
 - 7 St. Louis-San Francisco Consolidated 4½s, 1978
 - 7 Southern Pacific Railroad First Refunding Guaranteed 4s, 1955
 - 6 Southern Pacific-Oregon Lines First 4½s, 1977
 - 5 Southern Pacific-Central Pacific Stock Collateral Trust 4s, 1949

HELD

BY

- 8 Southern Pacific 40-Year 4½s, 1969 (With Warrants)
- 11 Southern Railway First Consolidated 5s, 1994
- 12 Southern Railway Development & General 4s, and 6½s, 1956
- 5 Terminal Railroad Association of St. Louis General & Refunding 4s, 1953
- 10 Texas & Pacific Railway General & Refunding "B" 5s, 1977, and "C" 5s, 1979
- 8 Union Pacific First Railroad & Land Grant 4s, 1947
- 7 Union Pacific First Lien & Refunding 4s and 5s, 2008
- 8 Virginian Railway First "A" 5s, 1962
- 5 Wabash Railroad First 5s, 1939
- 9 Wabash Railway General & Refunding 5s, 1976; 4½s, 1978; and 5s, 1980
- 7 Western Maryland Railroad First 4s, 1952
- 6 Wisconsin Central First General Sinking Fund 4s, 1949

PUBLIC UTILITY

- 7 Alabama Power First Lien & Refunding Sinking Fund 5s, 1951
- 5 Alabama Power First & Refunding 4½s, 1967
- 8 American Gas & Electric Debenture 5s, 2028
- 5 American Power & Light Debenture 6s, 2016
- 9 American Telephone & Telegraph Collateral Sinking Fund 5s, 1946
- 12 American Telephone & Telegraph Sinking Fund 5½s, 1943
- 27 American Telephone & Telegraph Debenture Sinking Fund 5s, 1960; 5s, 1965
- 5 Appalachian Power First 5s, 1941
- 10 Appalachian Electric Power First & Refunding 5s, 1956
- 10 Bell Telephone Company of Canada First 5s, 1955 & 5s, 1957
- 7 Bell Telephone Company of Pennsylvania First & Refunding 5s, 1948

142 TRUSTEESHIP OF AMERICAN ENDOWMENTS

HELD

BY

- 6 Brooklyn Edison, Inc., General 5s, 1949
- 5 Brooklyn-Manhattan-Transit Secured 6s, 1968
- 6 Carolina Power & Light First Refunding 5s, 1956
- 7 Cedars Rapids Manufacturing & Power First Sinking Fund 5s, 1953
- 7 Chicago Railways Company First (15% Principal Paid) 5s, 1927
- 8 Cleveland Electric Illuminating First 5s, 1939
- 8 Columbia Gas & Electric Debenture 5s, 1952
- 9 Commonwealth Electric First 5s, 1943
- 8 Consolidated Gas Company of New York Debenture 5½s, 1945
- 5 Cumberland Telephone & Telegraph First & General 5s, 1937
- 5 Dallas Power & Light First Sinking Fund 6s, 1949
- 5 Duke-Price Power, Ltd First 6s, 1966
- 7 Duquesne Light First 4½s, 1967
- 5 El Paso Electric First 5s, 1950
- 6 Federal Light & Traction First Lien 5s, 1942
- 9 Florida Power & Light First 5s, 1954
- 9 Gatineau Power First 5s, 1956
- 16 Georgia Power First & Refunding 5s, 1967
- 6 Great Western Power First Sinking Fund 5s, 1946
- 5 Gulf States Utilities First & Refunding 5s, 1956
- 10 Illinois Bell Telephone First & Refunding 5s, 1956
- 7 Illinois Power & Light First & Refunding 6s, 1953 & 5s, 1956
- 6 Indianapolis Power & Light First 5s, 1957
- 11 Interborough Rapid Transit Stamped First & Refunding 5s, 1966
- 13 International Telephone & Telegraph Debenture 4½s, 1952 and 5s, 1955
- 7 Kansas City Power & Light First "A" 5s, 1952

HELD

BY

- 5 Kansas Gas & Electric First $4\frac{1}{2}$ s, 1980
- 5 Louisville Gas & Electric First & Refunding 5s, 1952
- 8 Massachusetts Gas Sinking Fund Debenture $5\frac{1}{2}$ s, 1946
- 7 Milwaukee Electric Railway & Light Refunding First "B" 5s, 1961
- 5 Mississippi Power & Light First 5s, 1957
- 6 Mississippi River Power First Sinking Fund 5s, 1951
- 7 Montana Power First & Refunding Sinking Fund 5s, 1943
- 6 Montreal Light, Heat & Power First & Collateral $4\frac{1}{2}$ s, 1932
- 5 Narragansett Electric First Sinking Fund "A" 5s, 1957
- 7 National Power & Light Debenture "A" 6s, 2026 & "B" 5s, 2030
- 5 Nevada-California Electric First Trust 5s, 1956
- 8 New England Telephone & Telegraph First "A" 5s, 1952
- 6 New Orleans Public Service First & Refunding "B" 5s, 1955
- 5 New York & Westchester Lighting General 4s, 2004
- 12 New York Power & Light First $4\frac{1}{2}$ s, 1967
- 7 New York Telephone First & General $4\frac{1}{2}$ s, 1939
- 5 New York Telephone 20-Year Refunding "A" 6s, 1941
- 5 Niagara, Lockport & Ontario Power First & Refunding 5s, 1955
- 8 Northern States Power First & Refunding "A" 5s, 1941
- 8 Ohio Power First & Refunding "B" 5s, 1952 & "D" $4\frac{1}{2}$ s, 1956
- 6 Oklahoma Gas & Electric First 5s, 1950
- 9 Pacific Gas & Electric First & Refunding "C" $5\frac{1}{2}$ s, 1952
- 7 Pacific Telephone & Telegraph Sinking Fund Refunding "A" 5s, 1952
- 6 Pennsylvania-Ohio Power & Light First & Refunding "A" $5\frac{1}{2}$ s, 1954
- 8 Pennsylvania Power & Light First & Refunding "D" 5s, 1953

144 TRUSTEESHIP OF AMERICAN ENDOWMENTS

HELD

BY

- 6 Pennsylvania Water & Power First Sinking Fund 5s, 1940
- 7 Philadelphia Company Secured 5s, 1967
- 9 Philadelphia Electric Power First Sinking Fund 5½s, 1972
- 6 Portland General Electric First 5s, 1935
- 5 Public Service Company of Northern Illinois First & Refunding "A" & "B" 5½s, 1962
- 11 Puget Sound Power & Light First & Refunding Sinking Fund "A" 5½s, 1949
- 12 Shawinigan Water & Power First Collateral Sinking Fund 4½s, 1967 4½s, 1968 and 5s, 1970
- 6 Southeastern Power & Light Debenture 6s, 2025, ex warrants
- 10 Southern Bell Telephone & Telegraph First Sinking Fund 5s, 1941
- 6 Southern California Edison Refunding 5s, 1951
- 8 Southwestern Bell Telephone First & Refunding 5s, 1954
- 5 Southwestern Power & Light First Lien 5s, 1943
- 5 Springfield (Mo.) Gas & Electric First 5s, 1957
- 7 Texas Power & Light First Sinking Fund 5s, 1937
- 5 Texas Power & Light First & Refunding 5s, 1956
- 5 United Electric Co. of New Jersey First 4s, 1949
- 5 Utah Power & Light First Sinking Fund 5s, 1944
- 5 Virginia Electric & Power First & Refunding 5s, 1955
- 5 Washington Water Power First Refunding Sinking Fund 5s, 1939
- 6 Washington Water Power First & General 5s, 1960
- 6 Western Telephone & Telegraph Collateral Trust 5s, 1932
- 8 Western Union Telegraph Funding & Real Estate 4½s, 1950
- 5 Western Union Telegraph Debenture 5s, 1951

INDUSTRIAL

- 6 Aluminum Company of America Sinking Fund Debenture 5s, 1952

HELD

BY

- 6 American Rolling Mill Sinking Fund Debenture 5s, 1948
- 9 American Smelting & Refining Sinking Fund First 5s, 1947
- 11 Armour & Company (Illinois) Real Estate 1st $4\frac{1}{2}$ s, 1939
- 5 Armour & Company of Delaware 1st Guaranteed $5\frac{1}{2}$ s, 1943
- 5 Batavian Petroleum Joint Guaranteed Debenture $4\frac{1}{2}$ s, 1942
- 9 Brown Company First Sinking Fund $5\frac{1}{2}$ s, 1946
- 5 Bush Terminal Bldg , 1st Guar. 5s, 1960
- 5 California Petroleum Corporation Convertible Sinking Fund Debenture $5\frac{1}{2}$ s, 1938
- 6 Chicago Junction Railway & Union Stock Yards Collateral Trust 5s, 1940
- 10 Chile Copper Debenture 5s, 1947
- 8 Goodyear Tire & Rubber First & Collateral 5s, 1957
- 6 Hudson Coal Company First Sinking Fund "A" 5s, 1962
- 5 Humble Oil & Refining Debenture $5\frac{1}{2}$ s, 1932
- 7 Illinois Steel Debenture Guaranteed $4\frac{1}{2}$ s, 1940
- 5 Inland Steel First Sinking Fund $4\frac{1}{2}$ s, 1978
- 11 International Match Sinking Fund Debenture 5s, 1947
- 6 International Paper First & Refunding 5s, 1947
- 5 International Paper Refunding Sinking Fund 6s, 1955
- 5 International Securities Corp of America Debenture 5s, 1947
- 6 Koppers Gas & Coke Sinking Fund Debenture $5\frac{1}{2}$ s, 1950
- 5 Lackawanna Steel Company First Consolidated 5s, 1950
- 6 Midvale Steel & Ordnance Convertible Collateral 5s, 1936
- 9 National Dairy Products Debenture $5\frac{1}{4}$ s, 1948
- 7 Phillips Petroleum Company Debenture $5\frac{1}{4}$ s, 1939
- 9 Republic Iron & Steel Ref. & Gen. $5\frac{1}{2}$ s, 1953

146 TRUSTEESHIP OF AMERICAN ENDOWMENTS

HELD

BY

- 5 Shell Pipe Line Sinking Fund Debenture 5s, 1952
- 21 Shell Union Oil Debenture Sinking Fund 5s, 1947; and 5s, 1949
- 5 Solvay American Investment Corp. Secured Notes 5s, 1942
- 8 Standard Oil of New Jersey Debenture 5s, 1946
- 5 Standard Oil of New York Debenture 4½s, 1951
- 11 Texas Corporation Convertible Sinking Fund Debenture 5s, 1944
- 5 United Drug Company (Del) Sinking Fund 5s, 1953
- 11 United States Rubber First & Refunding 5s, 1947
- 12 Western Electric Debenture 5s, 1944
- 7 Wheeling Steel First & Refunding Sinking Fund 5½s, 1948
- 10 Youngstown Sheet & Tube First Sinking Fund 5s, 1978

FOREIGN GOVERNMENT

- 12 Argentine, Government of, External Sinking Fund 6s, 1957; 6s, 1958, 6s, 1959, 6s, 1960; 6s, 1961; and 5½s, 1962
- 11 Australia, Commonwealth of, External Sinking Fund 5s, 1955-57
- 11 Belgium, Kingdom of, External Sinking Fund 8s, 1941; and 6s, 1955
- 7 Copenhagen, City of, Denmark 25-Year External Gold 4½s, 1953; & External 5s, 1952
- 10 Canada, Dominion of, 15-Year 5s, 1931; 4½s, 1936, War Loan 5½s, 1934; 30-Year Gold 5s, 1952
- 8 Denmark, Kingdom of, External Gold 6s, 1942; 4½s, 1962; and 5½s, 1955
- 5 Dutch East Indies External Sinking Fund 6s, 1947

HELD

BY

- 8 German Republic External Gold Sinking Fund 7s, 1949
- 5 Montreal, City of, 5s, 1936 to 1956
- 5 New South Wales, State of (Australia), External Sinking Fund 5s, 1957 and 1958
- 13 Norway, Kingdom of, External Sinking Fund 6s, 1952; 35-year External Sinking Fund 5s, 1963; and 40-year External Sinking Fund 5½s, 1965
- 9 Ontario, Province of (Canada), Debentures, various issues
- 8 Toronto, City of (Canada), various issues
- 5 United Kingdom of Great Britain & Ireland Gold 5½s, 1937

UNITED STATES GOVERNMENT

- 10 United States Fourth Liberty Loan 4¼s, 1933-38

REAL ESTATE MORTGAGE

- 5 Trinity Buildings Corp. of New York First Sinking Fund 5½s, 1939

PREFERRED STOCKS

RAILROAD

- 10 Atchison, Topeka & Santa Fe 5% Non-cumulative Preferred
- 6 Baltimore & Ohio 4% Non-cumulative Preferred
- 5 Boston & Albany Guaranteed Stock
- 5 Illinois Central 6% Non-cumulative Convertible "A" Preferred
- 5 Missouri, Kansas & Texas 7% Cumulative Preferred
- 7 New York, Chicago & St. Louis 6% Cumulative Preferred

148 TRUSTEESHIP OF AMERICAN ENDOWMENTS

HELD

BY

10 New York, New Haven & Hartford 7% Cumulative Convertible Preferred

6 Union Pacific Railway 4% Non-cumulative Preferred

PUBLIC UTILITY

6 Alabama Power \$7 Cumulative Preferred

5 American Gas & Electric 6% Cumulative Preferred

11 American Power & Light \$5 and \$6 Cumulative Preferred

6 American Superpower First \$6 Cumulative Preferred

7 Buffalo, Niagara & Eastern Power \$5 Cumulative Preferred

9 Commonwealth & Southern \$6 Cumulative Preferred

5 Connecticut Light & Power 5½% Cumulative Preferred

13 Consolidated Gas of New York \$5 Cumulative Preferred

6 Duquesne Light First 5% Cumulative Preferred

20 Electric Bond & Share \$5 and \$6 Cumulative Preferred

5 Mississippi River Power 6% Cumulative Preferred

5 North American Edison \$6 Cumulative Preferred

6 Pennsylvania Power & Light \$7 Cumulative Preferred

5 Public Service of New Jersey 6% Cumulative Preferred

6 Southern California Edison Ltd. "B" 6% Cumulative Preferred

8 United Corporation \$3 Cumulative Preferred

INDUSTRIAL & MISCELLANEOUS

8 Alleghany Corporation 5½% Cumulative Preferred

5 Allied Chemical & Dye 7% Cumulative Preferred

8 Aluminum Company of America 6% Cumulative Preferred

5 American Locomotive 7% Cumulative Preferred

HELD

BY

- 5 Curtis Publishing \$7 Cumulative Preferred
- 5 De Pont (E I.) de Nemours 6% Cumulative Debenture
- 13 General Electric 6% Cumulative Special
- 7 General Motors \$5 Cumulative Preferred
- 6 Radio Corporation of America \$5 "B" Cumulative Preferred
- 7 Shell Union Oil Convertible 5½% Cumulative Preferred
- 5 Tide Water Oil 5% Cumulative Convertible Preferred
- 12 United States Steel Corporation 7% Cumulative Preferred

COMMON STOCKS

RAILROAD

- 9 Atchison, Topeka & Santa Fe Railway ✓
- 5 Atlantic Coast Line Railroad
- 8 Baltimore & Ohio Railroad
- 5 Canadian Pacific Railway ✓
- 9 Chicago & North Western Railway
- 5 Delaware & Hudson Company
- 13 Great Northern Non-cumulative "Preferred" (no common)
- 9 Illinois Central Railroad
- 6 Louisville & Nashville Railroad ✓
- 11 New York Central Railroad ✓
- 5 New York, New Haven & Hartford Railroad
- 6 Norfolk & Western Railroad

150 TRUSTEESHIP OF AMERICAN ENDOWMENTS

HELD

BY

13 Northern Pacific Railroad

12 Pennsylvania Railroad ✓

10 Southern Pacific Company ✓

11 Southern Railway

10 Union Pacific Railroad ✓

PUBLIC UTILITY

18 American Telephone & Telegraph Company ✓

6 Consolidated Gas Company of New York

5 Edison Electric Illuminating Company of Boston

10 Electric Bond & Share Company

6 Western Union Telegraph Company

INDUSTRIAL & MISCELLANEOUS

5 Allied Chemical & Dye Corporation ✓

6 Anaconda Copper Mining Company

7 Eastman Kodak Company ✓

12 General Electric Company ✓

5 General Motors Corporation ✓

5 Great Northern Iron Ore Properties, Inc.

9 Kennecott Copper Company ✓

10 Pullman, Inc.

6 Standard Oil Company of California ✓

6 Standard Oil Company of Indiana ✓

6 Standard Oil Company of New Jersey ✓

6 Standard Oil Company of New York

6 Texas Corporation

HELD

BY RAILROAD

7 United States Steel Corporation *

BANK STOCKS

6 Bankers Trust Company (New York) 1

7 Chase National Bank (New York) 1

5 First National Bank (New York)

5 First National Bank (Boston) 1

9 Guaranty Trust Company 1

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